

Great Britain 94

THE WAR CABINET

REPORT FOR THE YEAR 1917.

Presented to Parliament by Command of His Majesty.



LONDON:
PUBLISHED BY HIS MAJESTY'S STATIONERY OFFICE.

1918.

[Cd. 9005.]

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CONTENTS.

		PAGE.
PREFACE	iii
INTRODUCTION	iv
CHAPTER	I. ADMINISTRATIVE ORGANISATION.	
	A. The War Cabinet ...	1
	B. Departmental Reorganisation ...	3
"	II. IMPERIAL AFFAIRS.	
	A. The Imperial War Cabinet ...	5
	B. The Imperial War Conference ...	9
	C. Constitutional Development in India ...	10
"	III. EXTERNAL RELATIONS.	
	A. British Policy ...	12
	B. Conferences and Missions ...	15
	C. Inter-Allied Organisations ...	18
"	IV. THE BLOCKADE ...	21
"	V. THE NAVY ...	25
"	VI. THE MILITARY EFFORT IN 1917 ...	40
"	VII. THE AIR SERVICE ...	56
"	VIII. MUNITIONS ...	67
"	IX. NATIONAL SERVICE ...	80
"	X. INDUSTRIAL RELATIONS ...	94
"	XI. TRANSPORT.	
	(i) Shipping ...	105
	(ii) Shipbuilding ...	110
	(iii) Ports ...	114
	(iv) Railways ...	117
	(v) Canals ...	121
"	XII. IMPORT RESTRICTION POLICY ...	124
"	XIII. THE CONTROL OF INDUSTRY ...	130
"	XIV. FOOD.	
	(i) Food Production in the United Kingdom ...	156
	(ii) Control of Food ...	166
"	XV. PENSIONS, HEALTH, WELFARE, AND LIQUOR CONTROL ...	185
"	XVI. RECONSTRUCTION ...	199
"	XVII. FINANCIAL SUMMARY ...	211
"	XVIII. LEGISLATION OF THE SESSION, 1917-18 ...	220
APPENDICES.		
	I. Reply of the Allies to the President of the United States ...	226
	II. Text of the Proclamation to the People of Baghdad ...	228
	III. Prime Minister's Speech on War Aims (5th January, 1918) ...	230
CHART —Showing the Administrative Organisation of the British Government and its Development during the War ...	...	236
MAPS.		
	(i) Western Theatre of War.	
	(ii) Mesopotamia.	
	(iii) Palestine.	
	(iv) German East Africa.	

PREFACE.

There are times in the history of every nation when events shape themselves so quickly and with such significance that a trustworthy contemporary record is of special interest, not merely to posterity, but even to those living at the period itself. Such a time was the year 1917. During that year a gradual change came over the whole character of the war, and measures of administrative reorganisation were carried through, which are bound to have lasting effects upon the future of the country. The War Cabinet decided that an official account of these developments, which in many cases were the logical sequel to the steps taken by their predecessors, might be useful to Parliament and the nation, and gave instructions that a general report on the year 1917 should be prepared. They now submit the results to Parliament.

The Report does not set out to be an exhaustive account of governmental work, department by department, or to supersede the annual records published by the departments themselves. It is rather an attempt to survey the governmental history of the year 1917 as a whole in order to enable the reader to realise both the extent and the significance of the administrative developments which have taken place. The War Cabinet hope that a report which will inform the nation more fully as to the heavy responsibilities which have been placed upon the administrative services and which require the closest co-operation and goodwill of the public for their effectual discharge will assist the people in the consideration of the very important problems which lie ahead, both in the prosecution of the war, and in the national reconstruction which will follow peace.

The War Cabinet welcome this opportunity of thanking both the permanent and the temporary members of the Civil Service for their unfailing loyalty and constant industry which often involved long and laborious hours. Without this assistance, the putting into rapid operation of the war administration of the country would have been impossible. The whole Empire owes the Civil Service a lasting debt of gratitude.

INTRODUCTION.

A report covering so great a field of political and administrative activity would seem to require a brief introduction, partly in order to draw attention to the more important events of the year, and partly in order to show their relation to the earlier history of the war. These events, indeed, can only be fully appreciated in the light of that history, for they are largely the outcome of the activities of the previous years. In 1914 the British Empire took up the challenge thrown down to Europe by the Governments of the Central Empires and entered the field in defence of national liberty and international right. When war was declared, neither Government nor people had any idea of the magnitude of the struggle to which they were then committed. For modern war, except in the naval sphere, they were almost wholly unprepared. Their military forces were designed not for use on the continent of Europe but to defend the outlying frontiers of a world-wide commonwealth. There was no effective organisation for bringing the overseas portions of the Empire into close and continuous touch with the realities of the international situation. The external policy of the Empire was rather concerned to preserve the peace by the maintenance of the balance of power than by promoting the active co-operation of all free nations for the defence of freedom and justice in international affairs. The ensuing years witnessed a period of activity unparalleled in British history. A vast army, mainly of volunteers, was enrolled and organised into a force fit to engage in battle with the most formidable and most highly organised military power in the world, and private industries throughout the length and breadth of the land were gradually converted to the production of munitions of war—a transformation which entailed far-reaching alterations in the status and methods both of management and labour. The Overseas Dominions raised national armies which at an early date took their place in the battle line. India, fired by the cause for which the Empire stood, flung its army at a vital moment into the war and thereafter set steadily to work to expand it.

The year 1917 saw two marked developments. On the one hand there was a profound change in the character of the war itself. The inauguration of a general attack upon the sea communications of the Allies through the unrestricted use of the submarine greatly widened the scope of war-like operations and forced the people of the British Isles to expend an immense amount of time and energy on counter preparations of all kinds. The Russian revolution completely upset the Allied plan for a concerted offensive against the Central Powers on all fronts during the spring and summer of 1917, and eventually led to such a disintegration of the Russian army as enabled the German Government to transfer the greater part of its military resources from the Eastern to the Western theatre of war. Finally, the overthrow of the Russian autocracy, coupled with the entry of the United States into the war and the adhesion of Greece, Brazil, China and other neutrals to the Allied Cause, widened the war itself from a battle for the liberty of small nations and the defence of public right in Europe into a world-wide struggle for the triumph of a free civilisation and democratic government. Though the cause of popular Government received a set-back towards the end of the year owing to the disorganisation and anarchy which prevailed in the Russian Republic, this new character of the war was clearly brought out in the speeches of the Allied statesmen in the first days of the new year.

On the other hand, by the end of 1916, the preparations of the preceding years had reached a point when large measures of concentration and co-ordination had become imperative, not only as between the Allies, but in the administrative system of the United Kingdom and other parts of the Empire—a process which was rendered still more necessary by the new submarine campaign.

From the beginning of the war conferences between the Allies have become steadily more frequent. This inter-communication developed very rapidly during 1917. A special Allied Mission was sent to Russia in January to co-ordinate the preparations for the Allied offensive, but its plans were disorganised by the Russian revolution. Immediately after the revolution, however, a member of the War Cabinet went on a special mission of a political character to Petrograd, and this was followed by the visit of the Secretary of State for Foreign Affairs to Washington, after the entry of the United States into the war. This last Mission developed into a permanent organisation of considerable size. During the whole year, however, an increasing number of inter-governmental and

**Altered
Character
of War.**

**Inter-Ally
Co-operation.**

inter-departmental conferences took place both on diplomatic and military questions and on problems connected with the distribution between the Allies of imported supplies. This gradual integration of the Alliance was brought to a head towards the end of the year by the Rapallo agreement. This agreement provided for the formation of a Supreme War Council of the Allies, consisting of the Prime Ministers and one other Minister from each of the principal belligerents, which was to meet once a month in order to supervise the general conduct of the war. It further arranged that this Council was to be assisted by a number of military representatives sitting permanently at Versailles and advising it on all aspects of the war viewed as a single whole in the light of information derived from all fronts and all Governments. The first meeting was held in November, 1917. Shortly afterwards the Naval War Council of the Allies was brought into being. During the year the democratic Alliance has thus acquired the rudiments of a permanent machinery.

Corresponding with this development in the inter-allied sphere was the creation of the Imperial War Cabinet. For some time it had become increasingly apparent that some method had to be found of informing the Overseas Governments of the political and military situation and of enabling nations which were making such sacrifices for the common cause to take their part in the counsels of the Empire. Accordingly, at the beginning of 1917, the Prime Ministers of the Overseas Dominions were invited to attend a series of special meetings at the War Cabinet in order to discuss the problems of the war and the possible conditions of peace. India, for the first time, was also asked to send representatives to take part in this council of the Empire. The sessions of the Cabinet, thus enlarged, came to be known as the Imperial War Cabinet. The necessities of the war have thus brought into being a body representative of all parts of the Empire able to deliberate and to come to decisions on questions affecting the day-to-day conduct of the war as well as on the larger issues of Imperial policy without impairing the autonomy of the units of which the Empire is composed. This development and the sessions of the Imperial War Conference were the natural outcome of the wonderful spirit of unity and self-sacrifice which has enabled the peoples of the British Commonwealth to produce no less than 7,500,000 men to fight for freedom in addition to vast quantities of munitions and supplies of all kinds. So successful was this experiment in the opinion of its members, that it was decided unanimously that there ought to be an annual meeting of the Imperial Cabinet and that the Prime Ministers of the Empire or their specially delegated representatives,

together with the Ministers in charge of the great Imperial Offices should be its *ex officio* members.

The third sphere in which reorganisation and expansion was necessary was that of home affairs. The period began with a reconstruction of the administrative machinery at the centre. It had become increasingly evident that the older system under which the supreme direction of the war rested with a Cabinet consisting of the departmental chiefs under the Chairmanship of the Prime Minister, was not sufficiently prompt and elastic for the conduct of a war which involved the mobilisation and direction of the resources not only of the United Kingdom but of the British Empire. Even the formation of a smaller Cabinet Committee of the departmental Ministers chiefly concerned in the war did not meet the needs of the case. With the advent of the new Government, a modification was introduced whereby the supreme direction of the war was entrusted to a small War Cabinet, freed from all administrative duties, and yet in the closest touch with all departmental Ministers, while administrative responsibility was placed in the hands of Ministers who were left free to devote their whole time to this aspect of governmental work. By this arrangement the War Cabinet were able to give all their attention to the task of co-ordination and direction, and so make more effective use of the immense resources which the Empire had gradually produced during the preceding years. It also made it easier to create a number of much needed new administrative departments. The most important of these were the Ministry of Shipping, the Ministry of Labour, the Ministry of Food, and the Ministry of Pensions, to which were added at later dates the Ministry of Reconstruction, the Ministry of National Service, and the Ministry of the Air.

The administrative problems which faced the Government thus reorganised, in the early part of the year, were two-fold. It had to make provision for the still more vigorous prosecution of the war and for the supply of the ever-growing needs of the armies in the field, including a great deal of material for the Allies, and it had to meet the new menace to its communications from the unlimited submarine campaign.

The first problem was that of man-power. During the preceding year all sources which could be tapped without trenching upon the essential supplies of the Allied armies and the nation had been exhausted, and the question had narrowed itself down to that of finding substitutes for fit men of military age still engaged in industry. An attempt was, therefore, made to enrol a large army of volunteers to take the place of the men called

**War
Cabinet
Reorgani-
sation.**

**The Man-
Power
Problem.**

to the army. Partly owing to difficulties in withdrawing labour from the great war industries and partly owing to the limited supply of labour, great obstacles presented themselves in the execution of this scheme. But though the plan of enrolling an army of industrial volunteers had eventually to be abandoned, the system of dilution and substitution was steadily carried out and 820,646 men of all categories were taken for the service of the army during the year. The needs of the army, however, were not the only drain. A large amount of additional labour was required for agriculture, timber production and iron ore mining, as well as for industrial purposes. The needs in these respects also were gradually supplied by reducing unessential industries and by organising supplies of soldier, civilian, and foreign labour. Investigations were carried out as to the use of labour in different trades, and trade committees representing employers and employed were organised to deal with economy of man-power in particular industries. The evidence so obtained, while it demonstrated clearly the complexity and difficulty of a system of compulsory national service in industry, made it clear that in order to effect the best strategic use of the man-power of the country, the National Service Department required extension rather than restriction. Accordingly, in August, 1917, the Department was reorganised as a Ministry, recruiting was transferred from the War Office, and arrangements were made to ensure effective co-operation between the Ministry and the Employment Exchanges for the period of the war.

Notwithstanding the tremendous calls upon the man-power of the country for the ever-increasing needs of the army, the supply of munitions has steadily increased.

Munitions. In addition to large consignments to other fronts of the war, there has been an increase of 30 per cent. in all kinds of guns and howitzers and of over 100 per cent. in heavy guns and howitzers in the recent offensive in France as compared with those of last year. The weight of shell filled per month has been more than doubled since 1916. The output of high explosives has been sufficient to meet the increased demands of our armies, to build up stocks and to supply part of the needs of the Allies. There has been a steady improvement in the detonating value of gun ammunition and a continuous reduction in the number of premature explosions. In addition to guns, shells, and rifles the demands of the military and naval forces during the year for aircraft, tanks, mechanical transport, railway material, and equipment of every sort and kind have been endless. Despite the immensity of the demand it has, on the whole, been supplied. The British army is now probably the best provided of all the armies in the field, not only

in technical equipment, but in clothing, food and similar provision. The tremendous reorganisation of the industrial life of the country which has been necessary in order to produce these supplies, a reorganisation which includes not only manufacturing industries, railways, mines and shipping, but an immense variety of lesser enterprises, and amounts to a reconstruction of our economic life for the purposes of the war, is made clear in the chapters that follow. This achievement, which has been essential to the final victory of the allied cause, could never have been accomplished but for the zeal and energy of all classes, both at home and in the Empire overseas. The manufacturing resources of Canada have been mobilised for war production almost as completely as those of the British Isles, and a large proportion of the immense supplies of foodstuffs and raw materials required to maintain both the armies of the Empire and the national life of the United Kingdom have been derived from the Dominions, India and the Crown Colonies.

The most difficult problems which confronted the administration in the early part of 1917 were those which arose from the growing inadequacy of the overseas communications of the Allies—problems which were aggravated by the introduction of the unlimited submarine campaign on February 1st. The expansion of the armies, the ever-increasing demand for warlike material, the fall in production, especially of foodstuffs in all Allied countries through the calling of men to the Colours, and the decline in cultivation, coupled with the diversion of a large part of the shipping of the Allies to purely military and naval transportation, had already put a severe strain on the shipping resources of the country. The immediate effect of the new campaign was to double the rate of losses which had been incurred during 1916, and these losses rose rapidly to a climax in March and April.

The counter measures which were adopted by the Navy, however, were successful in reducing the attack to manageable proportions, though they involved a drain upon the national resources both in man-power and material which is often not fully recognised and which is by no means the least important of the contributions of the British Empire to the war. The number of men engaged either in the Navy or in supplying naval needs now exceeds a million. Unfortunately it is not possible to set forth in detail the immense scope of the Admiralty operations. But they include a very great addition to the armed

craft in the service of the Navy from torpedo boat destroyers to mine sweepers, airships and aeroplanes, and the organisation of a vast system of patrols and mine sweepers. As a result of the self-sacrificing devotion on the part of the men of the Navy and the auxiliary services and the steadfast performance in all weathers and seasons of their monotonous and dangerous duties, the enemy never succeeded in interfering to any vital degree with the sea communications of the Allies.

The naval preparations, however, were only part of the measures which were necessary to deal with the shipping situation. The second step was to create the Ministry of Shipping. At the end of 1916 the tonnage requisitioned by the State was less than one-half of the whole, and this was mainly used on purely military and naval services for the British Government or the Allies. During 1917 practically the whole of the remainder of the British ocean-going mercantile marine was brought under requisition at Blue Book rates and organised as a national war service. The Dominion Governments also liberated much overseas shipping for war purposes, and neutral shipping was brought as far as possible into Allied service. A close scrutiny was then made of the countries from which the necessary imports could be derived, and shipping was concentrated on the shortest routes, thereby multiplying the number of voyages the ships could make in the year. Loading regulations were revised, which increased the carrying capacity from the 1913 figure of 106 to 150 tons per 100 tons net of shipping entering our ports, and arrangements were made for shortening the time occupied in the turn round of ships at the ports. In the latter part of the year the convoy system was introduced which reduced the shipping losses, though it involved certain delays to individual ships. The result of this mobilisation and organisation of our shipping resources was, that, despite the heavy submarine losses, British imports during September, October, and November were equal in quantity to those of February, March and April, notwithstanding the fact that great quantities of shipping were employed on*directly military and naval duties, and that over 1,000,000 tons were lent to France, 500,000 tons were placed at the service of Italy, and much shipping was used for meeting the needs of Russia, Portugal and Greece as well. These results reflect the greatest credit on those who have been responsible for the direction of the shipping of the Empire. Nor must it be forgotten that these measures would have been fruitless unless the merchant service had accepted the responsibilities thus placed upon them and carried out their duties with a patience and disregard for danger worthy of the best traditions of the Navy.

**The
Shipping
Problem.**

In addition to these improvements in the methods of using shipping, a large programme of shipbuilding was put into operation, not only in British yards but in all the available yards in neutral countries as well. To ensure greater speed in building, a large number of the new ships were ordered to a standard design.

Ship-building. In spite of the difficulties of all kinds which have confronted the production of ships, notably the shortage in the supply of steel plates and of labour, the output has steadily mounted. During 1917 1,163,500 tons of new ships were built as against 542,000 tons in 1916, and by the end of 1918 the rate of output of all ships, war and merchant, ought to be double that of any previous year in British history. In order to make possible this increase 45 new berths have been provided in private shipyards and the construction of three new national shipyards containing 34 berths has been begun. Besides this effort at home 175,000 tons of shipping were purchased abroad, an amount which would have been very greatly exceeded if the United States had not taken over the whole programme of ships being constructed on British account when they entered the war.

The third step in dealing with the shipping problem was a drastic reduction of imports. In 1916 imports were cut down by 1,600,000 tons. Early in 1917 a Committee was appointed which recommended a preliminary programme of reductions amounting to 6,000,000 tons. This was approved and came into operation on March 1st.

Restriction of Imports. The programme was shortly afterwards increased by further severe restrictions of the imports of timber. The outcome of this policy has been that practically all cargo space is now reserved for goods carried directly or indirectly on Government account, and consists almost entirely of essential foodstuffs, raw materials required for the manufacture of national necessities and military needs or of munitions of war. The chief reductions were in timber, paper, feeding stuffs and brewing materials. The unfortunate but inevitable consequence of the restriction of imports and of the diversion of shipping from trading to war routes has been a large diminution in exports.

The fourth step was to secure a large increase in the production of food and raw materials at home. Before the war the United Kingdom produced less than 40 per cent. of all its cereal supplies. Since the war the area under corn crops had declined, while the returns of winter wheat at the beginning of December, 1916, indicated a further decline in acreage in 1917. To increase home production of foodstuffs meant a direct saving in the amount which had to be imported from overseas. Accord-

Increased Home Food Production.

ingly, a campaign for developing home-grown supplies was immediately set on foot. The first essential was to increase the confidence and stimulate the energy of the farmers and agricultural labourers. The Corn Production Act gave to the farmer increased security as regards prices, to the agricultural labourer a minimum wage and to the State control over the cultivation of land. Steps were taken to mobilise the existing and increase the future supply of tractors and steam ploughs, and to develop the manufacture of fertilisers. Despite the late period of the year the campaign for increased production resulted in the addition of nearly 1,000,000 acres to the area under corn and potatoes in the United Kingdom, and the crop returns afterwards showed that the supply of home-grown cereals was over 850,000 tons greater than in the preceding year. The potato crop, helped by very favourable conditions, exceeded the 1916 figures by more than 3,000,000 tons. There was also a large increase in the produce from urban rural allotments and from the use of gardens for vegetable growing. Plans were also prepared to secure a greatly increased area under tillage in the coming season, and there is now good reason to expect that in 1918 the tillage area in the United Kingdom will exceed that of 1916 by over 3 million acres. These satisfactory results have only been possible through the public spirited activity of large numbers of people throughout the country, including farmers, workers and organisers, to whom the nation has good reason to be grateful.

Corresponding to these measures in the matter of food, steps have been taken to develop the supply of home grown timber.

Timber and Ores. The imports of timber for 1917 fell from 6,300,000 tons to 2,800,000 tons, while the home-grown production has risen from 1,250,000 tons in 1916 to 3,000,000 tons in 1917. At the same time the Ministry of Munitions set in motion a large programme for the development of the home deposits of iron ore, which has resulted in an increase in the amount of phosphoric ores mined of 1,600,000 tons. Attention has also been directed towards the possibility of increasing the supplies of oils from British sources as well as to the more economical methods of using coal.

The fifth step in meeting the shipping shortage was to expand Government control over the distribution of all the chief national supplies, partly in order to secure that the best use was made of what was available and partly in order to prevent waste. The most important measure in this sphere was the creation of the Ministry of Food. Its first step was to ensure an adequate supply of breadstuffs. This was accomplished by raising the percentage of milling of wheat, by requiring the dilution of wheat with other cereals and by an increased programme of imports.

At the same time a scale of voluntary rations was announced and an active campaign was started in order to secure observance of them. The use of wheat, oats, barley and maize for animal food was also restricted or prohibited. As a result at the beginning of the winter of 1917, the national reserve of breadstuffs was in a more satisfactory position than any time since the outbreak of war, the wheat stocks alone being three million quarters in excess of the stocks in the corresponding period of 1916. A serious shortage, however, in the French and Italian harvests and the needs of our other Allies placed a heavy demand upon our supplies of wheat and towards the end of the year considerable quantities were diverted to their use. During the year the control of the Ministry was extended to cover all imported foodstuffs, practically all of which are now purchased on the national account, and an increasing measure of control has been established over home-grown cereals, meat, and dairy produce. In order to prevent the artificial raising of prices through competition, these purchases are now carried out in concert with our Allies through Inter-Ally Committees. As the year progressed the need for greater economy in consumption than was apparently attainable by voluntary means and the difficulties in distributing equitably the restricted supplies, compelled the introduction of a system of rationing. The system began with sugar, and at the end of the year was gradually being extended to cover other staple foodstuffs.

Another large economy was effected early in the year by a reduction of the manufacture of beer from the 1914 total of about 36,000,000 barrels and the 1916 total of 26,000,000 barrels to a total of some 14,000,000 standard barrels. The manufacture of spirits for human consumption has been stopped. Strong measures have also been taken to restrict the consumption of coal, oils, timber, cotton, and other articles. At the beginning of the year the coal mines and iron mines were taken over for the period of the war and Government control over the available supplies was established. A system of distribution of coal was then brought into operation which has not only ensured all necessary supplies but has effected economy in railway transportation. It is estimated that this reform will result in an economy of no less than seven hundred million railway ton miles in the carriage of coal. A Timber Controller was appointed to ration the greatly restricted supplies of wood. The consumption of petrol for private use was gradually curtailed until it was finally forbidden. Much has also been done to economise labour and material through the more active control in the national interest both of railway and canal transportation.

The result of these drastic measures has been that, despite all the enemy efforts to win a victory by the destruction of the merchant shipping of the world, the British peoples have been able to prosecute the war with the utmost vigour during the whole year. The Navy has continued to hold its predominant position at sea, has denied the oceans to the enemy for the purpose of transporting troops or supplies, and has exercised an ever-growing pressure upon him through the blockade. At the same time, though the submarine menace has not yet been mastered, the supply both of the military expeditions in all parts of the world and of the civilian population at home has been maintained. It may, indeed, be said with confidence, that as the result of the work of the Navy, of the merchant marine and of many civilian sections of the community, the German attempt to win the war by the destruction of the merchant shipping of the world has been definitely baffled.

In the military sphere, though no decision has been reached, great results have also been achieved. At the outset of the year the military prospects before the Allies were good. Their plans, however, for a converging attack on the Central Empires on all fronts were upset by the disorganisation of the Russian armies which followed the revolution—a disorganisation which ended in such complete dissolution that the Germans were enabled to transfer a large part of their Eastern forces to the Western front by the end of the year. None the less, during the whole of 1917 the German forces have been steadily pressed back from one highly fortified position to another in face of the systematic assaults of the Allied armies. The enemy indeed has consistently borne tribute to the terrible power of the British attacks, and to the heavy losses, both on land and in the air, which they have inflicted upon him. The chief successes have been gained at Arras, Messines and in Flanders. These victories, however, important as they were in themselves, are no adequate index to the effects which the intense pressure exerted by the military efforts of the Allies have had in discrediting militarism among the enemy peoples, and increasing their longing for peace.

On the other hand, there has been a complete transformation of the scene in the non-European theatres of the war. After a long period of comparative stagnation and failure, British arms have once more advanced to victory. The last of the German colonies—German East Africa—has been cleared of the enemy; Mesopotamia, with its capital Baghdad, has been rescued from the devastating rule of the Turk, and Southern Palestine, in-

cluding Jerusalem, after many centuries of effort, has been liberated by Christian hands. British prestige, indeed, in the East, which had fallen to a low ebb, has been completely restored; Germanic hopes of South Eastern conquest have been rudely shattered through the withdrawal of over 100,000 square miles of territory from German control, and the capacity of Turkey to continue the war has been gravely impaired. The military results of the year are thus very considerable. British armies have fought not in France alone, but in Italy, Macedonia, Mesopotamia, Palestine, and East Africa, and from being a combination of peaceful communities the Empire stands forth as the most powerful of all the commonwealths which are withstanding Prussian aggression. The extent of this effort, the unflinching courage and morale of the British armies, and the clear determination of all the British peoples to accept no peace which does not restore national liberty and public right afford ground for confidence that the Allies will eventually secure the purpose for which they entered the war.

There is a non-military aspect of the administrative developments of the year which it is important to note. In themselves these developments have been the result of the determination of the people to leave nothing undone which could contribute to the winning of the war. None the less they are bound to produce lasting and far-reaching effects on the social and economic life of the community. No record of the year would be complete which did not point out the changes which have been wrought in the structure of society by the experiences of the war.

In the first place, the organic life of the community has been greatly strengthened. On the one hand, not only have enormous numbers of men, and latterly of women also, been mobilised for military and naval purposes, but the vast majority of the people are now working directly or indirectly on public service. If they are not in the Army, the Navy or the Civil Service, they are growing food, or making munitions, or engaged in the work of organising, transporting or distributing the national supplies. On the other hand, the State has taken control for the period of the war over certain national industries, such as the railways, shipping, coal and iron mines, and the great majority of engineering businesses. It has also made itself responsible for the securing of adequate quantities of certain staple commodities and services, such as food, coal, timber and other raw materials, railroad and sea transportation, and for distributing the available supplies justly as between individual and individual in the national interest.

The Government has further had to regulate prices and prevent profiteering. It has done so partly by controlling freights, fixing maximum prices to the home producer, and regulating wholesale and retail charges, and partly by its monopoly of imported supplies. The information which the Government has obtained as to sources of supply, consumption and cost of production, and the relations it has entered into with other Governments as to the mutual purchase of essential products which they jointly control have, for the first time, brought within the sphere of practical politics the possibility of fixing relatively stable world prices for fundamental staples. The State has even taken the drastic step of fixing the price of the 4-lb. loaf at 9d., at a considerable loss to itself. Thus the war, and especially the year 1917, has brought about a transformation of the social and administrative structure of the State, much of which is bound to be permanent. Owing to the imperative importance of speed there has perhaps been an undue expansion of the functions of the central Government. But a very large amount of work has been devolved on to local authorities and to new bodies such as the War Agricultural Executive Committees, or the Local Food Control Committees. Taking the year as a whole the Administration has been brought into far closer contact with every aspect of the life of the people, the provinces and the metropolis have been linked more closely together, and the whole community has received an education in the problems of practical democracy such as it has never had before.

In the second place, the war has profoundly altered the conditions of the industrial problem. Since 1914 the community itself has become by far the greatest employer of labour. It has assumed control for the duration of the war over a great number of the larger private undertakings, it has limited profits by imposing an 80 per cent. excess profits tax, and it has intervened to prevent profiteering in the essential requirements of the nation. Further, the regulations of the trades unions have been suspended for the duration of the war, industry has been diluted throughout, new methods and new industries have been introduced, labour saving machinery has been everywhere installed, and the speed of production and the number and skill of workers has greatly risen. The nation today is far better organised and far more productive than it has ever been before. The effect of these changes on the supply of the national needs, on foreign trade, on employment, on the provision of capital after the war, is still quite incalculable. But it is bound to be enormous. The satisfactory settlement, how-

**The
Industrial
Problem.**

ever, of the tremendous problems which lie ahead will largely depend upon the mutual relations between employer and employed. Unless these improve, rapid and orderly progress will be almost impossible. With the advent of the new Government at the end of 1916, a Ministry of Labour was created to deal with labour questions. It is still early to speak of the results of its work, but an important step towards the creation of better conditions in the industrial world has been taken in the adoption by the Government of the report of the Whitley Committee, which recommended the development of machinery in the shape of industrial councils representative of employers and employed throughout the country, whereby it should be possible to solve the difficulties which will arise by the process of peaceful conference and negotiation in place of the methods of industrial war. Despite all difficulties and the recent increase in industrial unrest, it is probably true to say that as the result of the war there is now a better understanding both by capital and labour of their mutual problems than at any previous time.

In the third place, agriculture has been restored to its proper position in the national economy. After long years of neglect, its vital importance not only for the production of food, but for the healthy balance of the life of the nation, has at last been recognised. The guarantee of minimum prices for food products, the fixing of a minimum wage of 25s. a week for agricultural labourers, and the establishment of Agricultural Wages Boards for England and Wales, Scotland and Ireland, coupled with the other measures of the departments of Agriculture, mark a new era in the rural history of the British Isles.

In the fourth place, large measures of political reform have been initiated during the year. The most important was the introduction of a Bill for the better representation of the people, which embodied an agreement arrived at by the Speaker's Conference on Electoral Reform. This Bill which, despite its potentially controversial character, was passed by the House of Commons by the end of the year, is bound to have far-reaching consequences on the political life of the country, inasmuch as it provides for the addition of some 8,000,000 voters to the roll, including about 6,000,000 women.

In June an important step towards a settlement of the Irish question was taken in the setting up of an Irish Convention, sitting in Dublin, which has brought together men of widely different aims for the purpose of framing a system of government for Ireland within the Empire. the Government undertaking to recom-

mend to Parliament the passage into law of any measure which was the outcome of substantial agreement within the Convention.

On August 20th the Secretary of State for India made a long expected pronouncement in regard to the political future of India by declaring that the policy of His Majesty's Government was "that of the increasing association of Indians in every branch of the administration and the gradual development of self-governing institutions with a view to the progressive realisation of responsible government in India as an integral part of the British Empire." Shortly afterwards, he proceeded to India on the invitation of the Government of India and with the concurrence of the War Cabinet in order to discuss with those on the spot the best method of giving effect to this policy.

Following on the success of the Speaker's Conference on Electoral Reform, a Joint Committee consisting of members of both Houses of Parliament was appointed to report on the nature and limitation of the legislative powers to be exercised by the reformed Second Chamber, the best mode of adjusting differences between the Houses of Parliament, and the changes which are desirable in order that the Second Chamber may in future be so constituted as to exercise fairly the functions appropriate to a Second Chamber.

Other changes which were made during 1917 must also be noted. A Ministry of Pensions was established to take over the duties relating to war pensions previously discharged by the Admiralty, Chelsea Commissioners and the Army Council. The policy in regard to pensions has been revised in two main directions; first, the monetary scale has been increased and the conditions attached have been widened; second, it has been the aim of the Ministry not simply to make compensation for loss or injury but to endeavour to restore men as completely as possible to health and service.

An Education Bill was also introduced providing for a more equitable distribution of the cost of education between the central and local authorities, for the abolition of half-time, for the establishment of Nursery Schools, for the raising of the school age to 14 years and for a system of compulsory part-time education up to 18 years of age. The State grants for education have also been largely increased with a view to securing better remuneration for teachers.

In the sphere of Finance, apart from the raising of the excess profits tax already noted, the chief achievement of the year has been the success of the National War Loans.

Finance. The second Loan produced the unprecedented sum of over £1,000,000,000, and, thanks to the patriotic endeavours of the War Savings Associations, the purchase of War Savings Certificates, and, after October, of the National War Bonds has steadily increased. By the end of the year the amount raised from the latter source alone was over £210,000,000. The Indian Government made the generous contribution of £100,000,000 towards the cost of the war. The pay of the Army and Navy and of the lower ranks of the officers has been considerably increased at a cost of about £70,000,000 to the State.

Finally, an attempt has been made to grapple with the problems of reconstruction by the substitution of a Ministry of Reconstruction for the older Reconstruction Committee. The scope of its activities covers almost every branch of the national life. It has been concerned not only with the problems which will arise immediately on the return of peace, such as the demobilisation of the armies and the re-conversion to peace production of the many industries now making war material, it has also had to consider education, the supply and distribution of raw material, a great scheme for the better housing of the people both in town and country, labour and industrial problems, transportation, national health, and so forth. It is indeed becoming more and more apparent that reconstruction is not so much a question of rebuilding society as it was before the war, but of moulding a better world out of the social and economic conditions which have come into being during the war. The establishment of a Ministry with the powers conferred upon it by Statute means not only that schemes are prepared but that steps are taken to secure conference and co-ordinated action with the Departments or public authorities concerned. The Ministry, in fact, is acting as a general staff for the vast problems of reconstruction which will present themselves after the war.

In order to survey fully the activities of the year it is necessary to note the immense amount of work carried out by departments not directly connected with the prosecution of the war. The ordinary tasks of education, the administration of justice, including police and special constables, the business of local government, the conduct of posts and telegraphs, and so forth, have had to be performed, often under extreme pressure and usually with staffs

depleted by enlistment or the loan of many of their best officials to other departments. Thus the Post Office has dispatched an average of 13,000,000 letters and 650,000 parcels per week to the British Army and Navy, and has played an invaluable part in promoting Government loans and the sale of War Savings Certificates, though 78,000 of its servants have joined the forces. No less than £200,000,000 has been subscribed by the public through its agency since the outbreak of the war. Moreover, the rapid expansion of public activities has imposed a tremendous strain on those responsible for the provision of offices, factories and buildings of all kinds.

Finally, it should be noted that much information in regard to the activities of the year has necessarily had to be suppressed in order not to give intelligence of value to the enemy.

Looked at as a whole 1917 has been a remarkable year. During it the war has assumed more and more the character of a struggle on the part of all the free nations **1917 in** for the final destruction of militarism and the **Retrospect.** establishment of an international order which will give real securities for liberty and public right throughout the world. The nations of which the British Commonwealth is composed have been drawn together in their joint effort for the common cause. And within the United Kingdom there has been a growth in the sense of public service and of the power to improve and adapt economic and social and administrative methods which will make it far easier to build up a healthier and more equitably organised society in future. This record, indeed, shows that the British peoples have good reason for confidence that the spirit in which they have set themselves to deal with the problems of the past three years will enable them to master successfully the still greater problems which lie ahead.

CHAPTER I.

ADMINISTRATIVE ORGANISATION.**A. The War Cabinet.**

The most important constitutional development in the United Kingdom during the last year has been the introduction of the War Cabinet system. This change was the direct outcome of the war itself. As the magnitude of the war increased, it became evident that the Cabinet system of peace days was inadequate to cope with the novel conditions. The enlarged scope of Government activity and the consequent creation of several new departments, made a Cabinet, consisting of all the Departmental Ministers meeting under the Chairmanship of the Prime Minister, far too unwieldy for the practical conduct of the war. It was extremely difficult for so large a body to give that resolute central direction which became more imperative the more the population and resources of the nation had to be organised for a single purpose—the defeat of German militarism. Even the development of a comparatively small War Committee did not entirely meet the needs of the case, as the final responsibility rested not with them but with the Cabinet.

With the change of government, therefore, a new method of governmental organisation was introduced. The system of the War Cabinet distinguishes between the body which is responsible for the supreme direction of the war and the Ministers who have charge of the great administrative departments of State. The general direction of the policy of His Majesty's Government during the war rests with the War Cabinet, whose members, with one exception, are relieved of the day to day pre-occupations of administrative work, and whose time is, therefore, entirely available for initiating policy and for the work of co-ordinating the great Departments of State. The original members of the War Cabinet were: the Prime Minister, the Right Hon. Earl Curzon, the Right Hon. Viscount Milner, the Right Hon. A. Bonar Law, and the Right Hon. Arthur Henderson. Since then the Right Hon. Sir Edward Carson had been added to the War Cabinet, and the Right Hon. G. N. Barnes has taken the place of Mr. Henderson. In addition, in June, 1917, the War Cabinet invited General Smuts, who had attended the meetings of the Imperial War Cabinet as the Representative of the Government of the Union of South Africa, to attend the meetings of the War Cabinet during his stay in the British Isles. The only exception to the principle laid down above that the members of the War Cabinet should be free from administrative duties was in the case of Mr. Bonar Law, who filled the office of the Chancellor of the Exchequer, and one of whose principal duties was to act as the chief representative of the Government in the House of Commons.

The method of working the War Cabinet is as follows. At each meeting the Cabinet begins by hearing reports as to the progress of the war since the preceding day. Unless it wishes to confine its deliberations to general questions of policy, it then proceeds to deal with questions awaiting its decision. As these questions in the vast majority of cases affect one or more of the administrative departments, almost all its meetings are attended by the ministers and their chief departmental officials concerned. The majority of the sessions of the War Cabinet consist, therefore, of a series of meetings between members of the War Cabinet and those responsible for executive action at which questions of policy concerning those departments are discussed and settled. Questions of overlapping or conflict between departments are determined and the general lines of policy throughout every branch of the administration co-ordinated so as to form part of a consistent war plan. Ministers have full discretion to bring with them any experts, either from their own departments or from outside, whose advice they consider would be useful. The extent to which this policy of inviting expert assistance is carried may be judged from the fact that from December 9th, 1916, to December, 1917, no less than 248 persons other than members of the War Cabinet and the Secretariat have attended its meetings. These include experts on Foreign, Dominion, Indian, Colonial Affairs, Finance, Man-Power, Labour, Munitions and Industry, Shipping and Shipbuilding, Agriculture, Food Control, Education, Trade, Railways and Local Government, &c. The Secretary of State for Foreign Affairs, the First Sea Lord of the Admiralty, and the Chief of the Imperial General Staff attend at every meeting to communicate the latest intelligence in regard to the war and to consult with the War Cabinet on questions that arise from day to day. Under this system the War Cabinet has held more than 300 meetings in the past year. This fact in itself indicates the great change which has taken place in the work of the Cabinet.

In practice a considerable number of less important, but often highly complex, questions are referred to individual members of the War Cabinet or to Committees of Ministers or others. In some cases the Minister or Committee has power to decide, in others the instruction is to carry out a detailed investigation such as the War Cabinet itself could not usefully undertake and submit a Report for final decision to the Cabinet. By this means the War Cabinet is enabled to carry out exhaustive investigations without the whole of its members being overburdened with the details of every question.

Apart from the attendance of the Ministers in charge of the Departments concerned, certain other arrangements are made to ensure that the Government Departments are kept in close touch with the policy of the Cabinet, and, conversely, that the members of the War Cabinet are kept in touch with the policy and action of the various Departments. Minutes are kept of the discussions of the War Cabinet. Complete files of these minutes are sent to the Ministers most closely concerned in the conduct

of the war. In addition, copies of the War Cabinet minutes affecting them are sent to all other Departments. Besides this, the Secretariat of the War Cabinet are responsible for preparing weekly reports by arrangement with the Secretaries of State for Foreign Affairs, India and the Colonies on the matters with which they are concerned. These reports are circulated widely to all Ministers. Conversely a number of the Government Departments render weekly reports to the War Cabinet and also to other Ministers who are concerned or interested.

The working of the War Cabinet cannot be fully understood without some reference to the Secretariat which has come into existence in order to enable it to do its work. The Secretariat consists of the Secretary, Lieut.-Colonel Sir M. P. A. Hankey, and of ten Assistant Secretaries, with an office establishment located at 2, Whitehall Gardens. Under instructions from the Prime Minister the principal duties of the War Cabinet Secretariat are as follows :—

- (1) To record the proceedings of the War Cabinet.
- (2) To transmit the decisions of the War Cabinet to those Departments which are concerned in giving effect to them or otherwise interested.
- (3) To prepare the agenda papers ; to arrange for the attendance of Ministers and other persons concerned ; and to procure and circulate the documents required for discussion.
- (4) To attend to the correspondence connected with the work of the War Cabinet.
- (5) To prepare the Reports referred to in the previous section.

In addition to these primary duties the War Cabinet Secretariat provides the British Section of the Secretariat of the Inter-Allied Conferences, of the Supreme War Council at Versailles, the Secretariat of the Imperial War Cabinet, and the Secretariat of the majority of the Sub-Committees working in connection with the War Cabinet. The War Cabinet Secretariat is built up on the nucleus of the Secretariat of the Committee of Imperial Defence, which provided a system of liaison officers between the Committee and the Admiralty, War Office, India Office, and Colonial Office. This system has now been extended. Additional officers have been added, so that a liaison is now established between the War Cabinet Secretariat and all the Departments of the Government. This provides yet another means of securing touch between the War Cabinet and the various Government Departments. The Secretariat has also developed an organisation for the rapid distribution of documents dealing with inter-departmental matters of all kinds, which is by no means the least important branch of its work.

In addition to the War Cabinet Secretariat there was created a small Prime Minister's Secretariat to assist the Prime Minister in the discharge of the heavy responsibilities which fall upon him under the War Cabinet system.

B. Departmental Reorganisation.

The introduction of the War Cabinet system has resulted in considerable modifications of the administrative system of the Government. In the first place it has freed the various departmental Ministers from the constant necessity which rested upon them under the old Cabinet system of considering those wider aspects of public policy which often had nothing to do with their departments, but for which they were collectively responsible. They are, therefore, now able to devote a far larger part of their time to those administrative duties, which have become more exacting as the national activities have expanded under the pressure of the war. Secondly, it has made possible an increase in the number of Ministerial offices so as to effect a better distribution of functions. The new Ministries created since the introduction of the War Cabinet are the Ministries of Labour, Shipping, Food, Air, National Service, Pensions and Reconstruction. The method whereby the Ministers are kept in touch with one another and with the War Cabinet has already been described.

Not the least important aspect of this departmental reorganisation has been the necessity of promptly finding accommodation for the additional staffs of the old-established departments and for the staffs of the new departments. Since the beginning of the war, no less than 700 tenancies have been arranged, and in addition to these about 70 temporary buildings have been erected, a large number of which are in the neighbourhood of Whitehall.

A diagram is appended which shows clearly the growth of the great Departments of State during the war and their relation to the War Cabinet. It also shows the connection between the War Cabinet and the Imperial War Cabinet, and the Conference of the Allies and the Supreme War Council.

CHAPTER II.

IMPERIAL AFFAIRS.**A. The Imperial War Cabinet.**

The outstanding event of the year in the sphere of Imperial affairs has been the inauguration of the Imperial War Cabinet. This has been the direct outcome of the manner in which all parts of the Empire had thrown themselves into the war during the preceding years. Impalpable as was the bond which bound this great group of peoples together, there was never any doubt about their loyalty to the Commonwealth to which they belonged and to the cause to which it was committed by the declaration of war. Without counting the cost to themselves, they offered their men and their treasure in defence of freedom and public right. From the largest and most prosperous Dominion to the smallest island the individual and national effort has been one of continuous and unreserved generosity. It is not within the province of a Record, which is essentially concerned with the history of the administration of the United Kingdom, to describe in detail the achievements of the individual Dominions. Such an account, to do full justice, would require a separate record from each Oversea Government of its own internal administration. Surveying the position as a whole, however, great progress has been made during 1917 in the organisation both of the man-power and other resources of the Empire for the prosecution of the war. The British Army is now a truly Imperial Army, containing units from almost every part of the Empire, including not only all the Dominions and India, but the West Indies, East and West Africa, and a large number of volunteers from the Malay States, the Straits Settlements, Ceylon, Hongkong and other places within and without the Empire. The total contribution of the British Commonwealth to the armies fighting for freedom now is 7,500,000 men. Particulars of the part played in the various military operations in all parts of the globe by the forces from different portions of the Empire will be found in the chapter dealing with the military history of the year.

Similarly, in the economic field, every part of the Empire has contributed what it could in manufactured articles, foodstuffs or raw materials towards the common pool, and the process of establishing public control over the sources of supply has made giant strides. Further reference to this matter will be found in the appropriate chapters later on.

The real development, however, of 1917 has been in the political sphere, and it has been the result of the intense activity of all parts of the Empire in prosecuting the war since August, 1914.

It has been felt for some time that, in view of the ever-increasing part played by the Dominions in the war, that it was necessary that their Governments should not only be informed as fully as was possible of the situation, but that, as far as was practicable, they should participate, on a basis of complete equality, in the deliberations which determined the main outlines of Imperial policy. Accordingly, one of the first acts of the new Government was to send a telegram on December 14th inviting the Dominion Prime Ministers, not to an ordinary Imperial Conference but to a Special War Conference of the Empire, in the following terms: "They therefore invite your Prime Minister to attend a series of special and continuous meetings of the War Cabinet in order to consider urgent questions affecting the prosecution of the war, the possible conditions on which, in agreement with our Allies, we could assent to its termination, and the problems which will then immediately arise. For the purpose of these meetings, your Prime Minister will be a member of the War Cabinet."

It was also felt, in view of the keen enthusiasm which had manifested itself in India for the cause for which the Empire had entered the war, and of the invaluable services which the Indian troops and others had rendered to the common cause, that it was right that India should also be represented at the Conference. A telegram was therefore also sent to the Viceroy of India to send representatives to assist the Secretary of State for India in representing the views and needs of India at the Conference, thus giving India for the first time representation in the councils of the Empire.

These invitations were accepted by all the Dominions as well as by India. In some cases the Prime Ministers were able to come, and brought some of their colleagues as assessors on matters in which they had special experience. Canada was represented by the Right Hon. Sir Robert Borden, Prime Minister, and Sir George Perley, Minister of the Overseas Military Forces, who were accompanied by the Hon. Robert Rogers, Minister of Public Works, and the Hon. J. D. Hazen, Minister of Marine Fisheries and Naval Service. Australia was unfortunately prevented at the last minute, owing to a general election, from sending any representatives. New Zealand was represented by the Right Hon. W. F. Massey, Prime Minister, and the Right Hon. Sir J. G. Ward, Minister of Finance and Posts. South Africa was represented by Lieut.-General the Right Hon. J. C. Smuts, Minister of Defence; Newfoundland by the Right Hon. Sir E. P. Morris, Prime Minister. India was represented by the Secretary of State for India, the Right Hon. Austen Chamberlain, M.P., accompanied by three assessors, namely, the Hon. Sir J. S. Meston, K.C.S.I., Lieutenant-Governor of the United Provinces; Colonel His Highness the Maharajah Sir Ganga Singh, Bahadur, G.C.S.I., G.C.I.E., Maharajah of Bikaner; Sir S. P. Sinha, Member Designate of the Executive Council of the Governor of Bengal. The Secretary of State for the Colonies, the Right Hon. Walter H. Long, M.P., was *ex officio* a member of the Imperial

War Cabinet and spoke on behalf of the Crown Colonies and Protectorates.

Practical convenience determined that the War Conference should be divided into two parts. On the one side were meetings of what came to be known as the Imperial War Cabinet, which consisted of the Oversea Representatives and the Members of the British War Cabinet sitting together as an Imperial War Cabinet for deliberation about the conduct of the war and for the discussion of the larger issues of imperial policy connected with the war. On the other side was the Imperial War Conference presided over by the Secretary of State for the Colonies, which consisted of the Oversea Representatives and a number of other Ministers, which discussed non-war problems or questions connected with the war but of lesser importance.

The proceedings of the Imperial War Cabinet which held fourteen meetings between March 20th and May 2nd, 1917, were secret. On the 17th May, however, the Prime Minister gave to the House of Commons a short appreciation of the work of the Imperial War Cabinet, from which the following is an extract :—

“The Imperial War Cabinet was unanimous that the new procedure had been of such service not only to all its members but to the Empire that it ought not to be allowed to fall into disuetude. Accordingly, at the last session I proposed formally, on behalf of the British Government, that meetings of an Imperial Cabinet should be held annually, or at any intermediate time when matters of urgent Imperial concern require to be settled, and that the Imperial Cabinet should consist of the Prime Minister of the United Kingdom and such of his colleagues as deal specially with Imperial affairs, of the Prime Minister of each of the Dominions, or some specially accredited alternate possessed of equal authority, and of a representative of the Indian people to be appointed by the Government of India. This proposal met with the cordial approval of the Overseas Representatives, and we hope that the holding of an annual Imperial Cabinet to discuss foreign affairs and other aspects of Imperial policy will become an accepted convention of the British Constitution.

“I ought to add that the institution in its present form is extremely elastic. It grew, not by design, but out of the necessities of the war. The essence of it is that the responsible heads of the Governments of the Empire, with those Ministers who are specially entrusted with the conduct of Imperial Policy should meet together at regular intervals to confer about foreign policy and matters connected therewith, and come to decisions in regard to them which, subject to the control of their own Parliaments, they will then severally execute. By this means they will be able to obtain full information about all aspects of Imperial affairs, and to determine by consultation together the policy of the Empire in its most vital aspects, without infringing in any degree the autonomy which its parts at present enjoy. To what con-

stitutional developments this may lead we did not attempt to settle. The whole question of perfecting the mechanism for 'continuous consultation' about Imperial and foreign affairs between the 'autonomous nations of an Imperial Commonwealth' will be reserved for the consideration of that special Conference which will be summoned as soon as possible after the war to readjust the constitutional relations of the Empire. We felt, however, that the experiment of constituting an Imperial Cabinet in which India was represented had been so fruitful in better understanding and in unity of purpose and action that it ought to be perpetuated, and we believe that this proposal will commend itself to the judgment of all the nations of the Empire."

In addition, it may perhaps be useful to quote the opinion of one of its Oversea Members, Sir Robert Borden, as to the significance of the meetings of the Imperial Cabinet. Speaking on April 3rd to the Empire Parliamentary Association, he said:—

"It may be that in the shadow of the war we do not clearly realise the measure of recent constitutional development . . . the constitutional position which has arisen from the summoning of an Imperial War Cabinet. The British Constitution is the most flexible instrument of government ever devised. It is surrounded by certain statutory limitations, but they are not of a character to prevent the remarkable development to which I shall allude. The office of Prime Minister, thoroughly recognised by the gradually developed conventions of the Constitution, although entirely unknown to the formal enactments of the law, is invested with a power and authority which, under new conditions demanding progress and development, are of inestimable advantage. The recent exercise of that great authority has brought about an advance which may contain the germ and define the method of constitutional development in the immediate future. It is only within the past few days that the full measure of that advance has been consummated.

"For the first time in the Empire's history there are sitting in London two Cabinets, both properly constituted and both exercising well-defined powers. Over each of them the Prime Minister of the United Kingdom presides. One of them is designated as the 'War Cabinet,' which chiefly devotes itself to such questions touching the prosecution of the war as primarily concern the United Kingdom. The other is designated as the 'Imperial War Cabinet,' which has a wider purpose, jurisdiction and personnel. To its deliberations have been summoned representatives of all the Empire's self-governing Dominions. We meet there on terms of equality under the presidency of the First Minister of the United Kingdom; we meet there as equals; he is *primus inter pares*. Ministers from six nations sit around the Council Board, all of them responsible to their respective Parliaments and to the people of the countries which they represent. Each nation has its voice upon questions of common concern and highest importance as the deliberations proceed; each preserves unimpaired its perfect autonomy, its self-government, and the responsibility of its Ministers to their own electorate. For many

years the thought of statesmen and students in every part of the Empire has centred around the question of future constitutional relations; it may be that now, as in the past, the necessity imposed by great events has given the answer.

“The Imperial War Cabinet as constituted to-day has been summoned for definite and specific purposes, publicly stated, which involve questions of the most vital concern to the whole Empire. With the constitution of that Cabinet, a new era has dawned and a new page of history has been written. It is not for me to prophesy as to the future significance of these pregnant events; but those who have given thought and energy to every effort for full constitutional development of the oversea nations may be pardoned for believing that they discern therein the birth of a new and greater Imperial Commonwealth.”

B. The Imperial War Conference.

The discussions and decisions of the Imperial War Conference, which met in the Colonial Office, have already been partly published in a Blue Book. The most important resolution passed by the Conference dealt with the future constitutional organisation of the Empire and was moved by Sir Robert Borden in the following terms:—

“The Imperial War Conference are of opinion that the readjustment of the constitutional relations of the component parts of the Empire is too important and intricate a subject to be dealt with during the war, and that it should form the subject of a special Imperial Conference to be summoned as soon as possible after the cessation of hostilities.

“They deem it their duty, however, to place on record their view that any such readjustment, while thoroughly preserving all existing powers of self-government and complete control of domestic affairs, should be based on a full recognition of the Dominions as autonomous nations of an Imperial Commonwealth, and of India as an important portion of the same, should recognise the right of the Dominions and India to an adequate voice in foreign policy and in foreign relations, and should provide effective arrangements for continuous consultation in all important matters of common Imperial concern and for such necessary concerted action, founded on consultation, as the several Governments may determine.”

The significant step of inviting India to the deliberations of the Imperial War Cabinet, already referred to, was followed up by two far-reaching resolutions passed by the Conference. The first provided that India was to be fully represented at all future Imperial Conferences. The second accepted the principle of reciprocity of treatment between India and the Dominions in the matter of immigration, and recommended certain practical proposals on the subject put forward by the representatives of India to the favourable consideration of the Dominion Governments. These proposals were first, that the facilities for settle-

ment accorded to Indians should be not less advantageous than those allowed to subjects of other Oriental nations. Secondly, that facilities should be accorded to educated Indians visiting the Dominions for travel and study apart from settlement; and, thirdly, that Indians who have already been permitted to settle abroad should receive sympathetic treatment.

The Imperial War Conference also considered Trade questions and passed a resolution in the following terms :—

“ The time has arrived when all possible encouragement should be given to the development of Imperial resources, and especially to making the Empire independent of other countries in respect of food supplies, raw materials, and essential industries. With these objects in view, the Conference expresses itself in favour of :—

- (1) The principle that each part of the Empire, having due regard to the interests of our Allies shall give specially favourable treatment and facilities to the produce and manufactures of other parts of the Empire.
- (2) Arrangements by which intending emigrants from the United Kingdom may be induced to settle in countries under the British flag.”

Much of the time of this Conference was spent in considering the problem of developing the food and natural resources of the Empire and of devising the best means of securing their control and utilisation for Imperial purposes. The Conference, in particular, recommended the establishment in London of an Imperial Mineral Resources Bureau, to be specially concerned with the mineral and metal assets and requirements of the Empire.

The Conference also provided for the establishment of a permanent Imperial War Graves Commission, under the presidency of H.R.H. the Prince of Wales, on which all parts of the Empire are represented. This Commission will care in perpetuity for the graves of those who have given their lives in this war for their country and their cause.

Among other noteworthy proceedings of this Conference was the strong expression by all the representatives present of their attachment to the monarchical institutions of the Empire and of their value as a means of maintaining Imperial unity.

C. Constitutional Development in India.

The important decisions about the position of India in the Empire made by the Imperial War Cabinet and the Imperial War Conference have been recorded in the preceding section. It was clear, however, that this recognition of the new status of India in the Empire would necessarily be followed by substantial progress towards internal self-government. Accordingly, on August 20th, the following important declaration of His Majesty's

Government on this subject was made in the House of Commons by the Secretary of State for India :—

“ The policy of His Majesty’s Government, with which the Government of India are in complete accord, is that of the increasing association of Indians in every branch of the administration and the gradual development of self-governing institutions with a view to the progressive realization of responsible government in India as an integral part of the British Empire. They have decided that substantial steps in this direction should be taken as soon as possible, and that it is of the highest importance, as a preliminary to considering what these steps should be, that there should be a free and informal exchange of opinion between those in authority at home and in India. His Majesty’s Government have accordingly decided, with His Majesty’s approval, that I should accept the Viceroy’s invitation to proceed to India to discuss these matters with the Viceroy and the Government of India, to consider with the Viceroy the views of local Governments, and to receive with him the suggestions of representative bodies and others. I would add that progress in this policy can only be achieved by successive stages. The British Government and the Government of India on whom the responsibility lies for the welfare and advancement of the Indian peoples must be the judges of the time and measure of each advance, and they must be guided by the co-operation received from those upon whom new opportunities of service will thus be conferred and by the extent to which it is found that confidence can be reposed in their sense of responsibility. Ample opportunity will be afforded for public discussion of the proposals, which will be submitted in due course to Parliament.”

In accordance with this declaration, the Secretary of State left for India in October, and has since been in consultation with the Government of India and deputations representative of all interests and parties in India in regard to the advances which should be made in Indian constitutional development in the immediate future. No report as to the results of these discussions had been made public by the end of the year.

Another important decision relating to India was that whereby the Government abandoned the rule which confines the granting of commissions in the Indian army to officers of British extraction. A number of Indian officers, who have served with distinction in the war, have already received commissions.

CHAPTER III.

EXTERNAL RELATIONS.**A. British Policy.**

It is not possible in an administrative record to make any detailed survey of the question of foreign relations. So far as administrative work is concerned, the most important part of the work consists in personal contact with the representatives of foreign powers, or the more modern and democratic form of diplomacy, propaganda and publicity, the outcome of which can only be gauged by the result of the war itself. The expansion of activity, especially in these latter directions, has been enormous and is steadily increasing. But for manifest reasons the details cannot be recorded in a compilation of this kind. It must suffice to say that in every country of importance, the ordinary machinery of diplomacy has been duplicated by publicity bureaux and other methods of communication with the peoples of the countries concerned, supplied with material from a very large publicity organisation, both cable and mail, in the British Isles.

In the realm of policy the war has come to overshadow every other aspect of British external relations. Every nation in the world is now vitally affected by a struggle whose effects are intensely felt to the uttermost ends of the earth, and all lesser diplomatic questions tend to await the decision of the fundamental issue of whether mankind is to progress on lines of freedom or under the lowering domination of Prussian autocracy.

The aims of the British peoples in the war are well known. Fundamentally their objects are to restore to liberty nations whose independence has been wrongfully assailed and to bring into being a new international order, based upon the free consent of all peoples and upon respect for the rights of nations as defined in international law which will give real security for lasting peace. These aims have been stated in the reply of the Allies to President Wilson of January, 1917, supplemented by the despatch of the Secretary of State for Foreign Affairs, and in the speech of the Prime Minister of January 5th, 1918, in regard to the negotiations between the Commissioners of the People in Petrograd and the delegates of the Central Powers at Brest Litovsk. These declarations are printed as appendices for convenience of reference. It remains to consider briefly the progress which has been made towards their realisation in the year 1917.

The first and most striking change which has taken place in the diplomatic situation in the last year has been the Russian Revolution, whereby the autocracy of the Czar was overthrown

and a Revolutionary Government was established in its place. The British Government, while recognising the great services which had been rendered to the Allies by the armies of Russia under the old regime, immediately manifested a most sympathetic attitude towards the new democracy. The Revolution was welcomed in a telegram from the Prime Minister as representing the first great victory won during the war for liberty against absolutist autocracy. After the Revolution, the steadfast object of His Majesty's Government was to help Russia to establish a stable constitutional government, to encourage by every means in their power the rehabilitation of the army, and to promote cordial relations between the new Republic of Eastern Europe and the Western Allies. Facilities were given for visits to Russia by representatives of the Labour Party and other political bodies, and Mr. Arthur Henderson—a member of the War Cabinet—at the request of his colleagues went to Russia for the special purpose of creating a firm understanding between the two countries. Though the establishment of a stable Russian democracy has been delayed by revolutionary anarchy, there is no doubt that the overthrow of autocracy in Russia has hastened the growth of democratic sentiment within the Central Powers and has thereby contributed to the final overthrow of militarist ideals.

The second noteworthy event in the past year has been the entry of the United States into the war. The declaration of war by one of the most populous and richest nations in the world, the nation which was also the greatest of the neutrals, was an event not less far-reaching in its significance than the overthrow of absolutism in Russia. The one made it finally clear that the war was one between a free civilisation and a militarist autocracy; the other implied that the conscience of the whole civilised world was now definitely arrayed on the Allied side. The assistance which the United States has already given has been of the greatest service and the steady expansion of her strength is making her one of the most potent factors in the war, as it will make her a powerful influence in international reconstruction afterwards.

The third event which must be noted is the deposition of King Constantine and the advent to power of M. Venizelos in Greece. Recent revelations have made it clear that the Court of Greece was wholly committed to the German side and was only waiting a favourable opportunity in order to attack the Allied forces in the rear. In June last the situation had reached a point where further temporising was impossible. The Allied Governments determined to exercise their rights as protecting powers and to send an ultimatum to King Constantine in which they demanded his abdication of the throne, stating that in the event of refusal they would take whatever steps might be necessary in order to give effect to their decision. It was agreed that M. Jonnart should act as High Commissioner for the Western Powers in executing the joint policy, and under his management it was carried into effect with complete success.

As a result there is now established in Greece a constitutional and friendly government which has entered the war on the Allied side.

One other change calls for comment, the gradual abandonment of neutrality by nearly all the free nations not within striking distance of the Central Powers. Whereas the British Empire entered the war with six Allies, France, Russia, Japan, Serbia, Belgium, and Montenegro, there have been added to these Italy, Portugal, Rumania, United States, China, Greece, Siam, Cuba, Liberia, Panama and Brazil. In addition, the following countries have broken off relations with Germany: Uruguay, Bolivia, Ecuador, Costa Rica, Guatemala, Hayti, San Domingo, Nicaragua and Honduras. The accession of almost the whole world to the cause of the Allies is not only a moral proof of the righteousness of that cause, but is bound to have a far-reaching effect on the war itself. For, while in most cases it may not have much influence on military operations, it secures to the great Alliance of Free Nations the control of the markets, raw materials and other economic resources of practically the whole world outside the narrow territory comprised in Central Europe, Turkey and Scandinavia. This is a factor which is also bound to have decisive effects during the period of reconstruction after the war.

In addition to these broad changes, it is necessary to note certain important events due to the action of the Allied arms. In March Mesopotamia was liberated from Turkish rule through the capture of Baghdad by the forces under the command of General Maude. The proclamation in regard to the system of administration to be set up in Mesopotamia is printed in the Appendix. On December 11th Jerusalem was captured by the troops under General Allenby and the secular dream of the Christian world to liberate Palestine from the domination of the Turk was thereby half accomplished. This event was preceded by an important declaration by the British Government in regard to the aspirations of the Jewish people in Palestine to the following effect:—

“ His Majesty’s Government views with favour the establishment in Palestine of a national home for the Jewish people, and will use its best endeavours to facilitate the achievement of this object, it being clearly understood that nothing shall be done which may prejudice the civil and religious rights of existing non-Jewish communities in Palestine or the rights and political status enjoyed by Jews in any other country.”

Finally, by the end of the year, German forces were driven from German East Africa, whereby the last of the German overseas possessions passed into the hands of the Allies. These events had the effect of freeing the non-European world from the domination of military imperialism and opened the way for a system whereby peoples not able to maintain independent

governments could be placed under governments acceptable to themselves whose main purpose was to save them from exploitation by Europeans and to educate and train them to conduct civilised governments of their own.

Surveying, therefore, the diplomatic situation as a whole, the changes which have taken place since the beginning of 1917 were much in favour of the Allies. In the great struggle between despotism and freedom—a struggle which had come to overshadow all other issues in international affairs—the forces of freedom gained during the year a manifest advantage. The Prussian military machine had become steadily more and more isolated in the world. Though its military power remained very great and the collapse of the Russian army had enabled it to transfer large numbers of troops and guns for use against the Western Allies, its prospects of eventual success had perceptibly diminished. The Allies in the West continued to present a front to its ambitions as strong and impervious as it had ever been, and behind them the United States were steadily building up a mighty power. In the East, Russia, if militarily impotent, was the theatre of a revolutionary movement whose tendency must be to alienate the German people from the doctrines and methods of their autocratic rulers. To the South, the Allies of Germany were growing steadily more weary of the despotic control of Berlin and more reluctant to continue the war in order that its ambition of domination might be satisfied. Taking a long view, therefore, there is no reason to be dissatisfied with the progress which has been made during the year 1917 towards the triumph of the cause for which the British Empire entered the war.

B. Conferences and Missions.

Another striking development calls for a section to itself, and that is the advance which has been made in the sphere of inter-allied co-operation during the past year. During the early period of the war there were inter-governmental Conferences at fairly frequent intervals whose purpose it was to adjust the plans of the different Allies. Indeed, from the beginning there has been a strongly marked tendency to substitute frequent personal meetings between members of Governments, ministers and departmental chiefs, for the older and more formal channels of communication. Of late, however, the importance of treating the war as a single whole and the necessity for pooling the resources of the Allies so as to meet equitably the needs of all, as war demands increased and supplies diminished, has led to far closer and more frequent consultation. Thus, during the past year there have been Conferences between the heads of the governments or their specially delegated plenipotentiaries upon the major issues of diplomacy and the war in London, Paris, Rome, Petrograd, St. Jean de Maurienne, Calais, Folkestone and Rapallo.

In November, 1917, a further very important step was made. In order to introduce greater unity in the Allied plans,

and closer co-operation in the execution of those plans, an agreement was entered into between the governments of Great Britain, France and Italy at Rapallo, to which the United States afterwards adhered, whereby there was constituted a Supreme War Council, consisting of the Prime Ministers of the various governments concerned and one other Minister, meeting once a month normally at Versailles, in order to supervise the military operations of the Allies. To this Council was attached a permanent military staff, consisting of one expert nominated by each of the Western Allies with the necessary assistants, sitting permanently at Versailles, and reporting to the Council on the progress of the war, viewed as a whole, in the light of information derived from all the armies and governments of the Allies. Round this Supreme War Council thus constituted, other inter-allied bodies have since been formed. Thus, on December 15th, 1917, the creation of a permanent Allied Naval Council was announced. The Naval Council was to consist of the Ministers of Marine of the nations concerned and of the Chiefs of the Naval staffs. Its function is to "watch over the general conduct of the naval war and to ensure the co-ordination of effort at sea, as well as in the development of all scientific operations connected with the conduct of the war." The consequences of this new piece of inter-allied machinery have yet to be seen. But its creation is an important and significant step in the growth of solidarity between the democratic Allies.

In addition to governmental Conferences and the meetings of the Supreme War Council, inter-allied co-operation has been fostered by the sending of special missions to the most distant Allies. There was first of all the mission to Russia, which was the outcome of the inter-allied Conferences held in London in December, 1916, and in Rome in January, 1917. British, French and Italian Missions left for Russia in the latter month, the principal members of the British Mission being Lord Milner, General Wilson and Lord Revelstoke. As a result of the efforts made by the Allies to assist in the equipment of the Russian forces and, further extended by these Missions, the Russian Army by the spring of 1917 was equipped on a scale which it had never before reached, and a programme was drawn up at the Conferences held in Petrograd which was intended to maintain and greatly increase the scale of Russian armaments during the last year. The effect of the Russian Revolution in disturbing the execution of this programme of the Allies has already been noted.

The second quarter to which British Missions have been sent has been the United States of America. From an early date in the war there had been a number of departmental representatives supervising the production of supplies for the Allies. On the entry of the United States into the war, a special Mission under the leadership of the Secretary of State for Foreign Affairs (Mr. A. J. Balfour) proceeded to the United States, partly to offer the congratulations of the British peoples on the entry of America into the war and partly to discuss with the Administra-

tion the manner in which the United States could best assist in the prosecution of the war. This Mission, which established the most friendly and cordial relations with the Administration and people of the United States, was accompanied by a Labour delegation under Mr. J. H. Thomas, M.P., and Mr. C. W. Bowerman, M.P., which discussed with the United States authorities the Labour problems which would arise in the light of British experience. The return of the Balfour Mission was followed by the appointment of Lord Northcliffe as the head of a permanent British War Mission. Since April the work and personnel of this Mission has enormously expanded. It now covers almost every aspect of war activity, and consists of more than 500 people. Its headquarters are in New York. It has an important office also in Washington. The work of the Mission covers the production and inspection of munitions, shipping, finance, wheat, exports, recruiting and remount work, oil supply, food, sugar, leather and other departments. In addition, it has to perform an immense amount of work in co-ordinating the activities of the various departmental representatives as well as dealing with a great and increasing volume of enquiries from official and private sources and the Press on every aspect of the war.

In September Lord Reading went to America on a special Mission to discuss with the United States and the Canadian authorities various financial problems. In January, 1918, after a brief visit to England, he was appointed as special Ambassador to the United States, with control over the British War Mission on the departure from Washington on leave of Sir Cecil Spring-Rice.

In addition to these Missions to Russia and the United States, an important Mission consisting of representatives of the Government of the United States, headed by Colonel E. M. House, was welcomed in London in November. This Mission performed a great deal of valuable work in co-ordinating the views of the British and American Governments as to practical methods of co-operation, and culminated in a Conference between the War Cabinet, the various British Ministers concerned and the Members of the American Mission, at which the threads of the previous weeks' work were drawn together and the broader lines of policy were laid down.

Over and above these larger Conferences and Missions there have been a very large number of meetings between individual Ministers representing the various Allies and officials of their departments, and, since the establishment of the Supreme War Council, these have become much more frequent. There can be no doubt that these continual meetings between representatives of the Allies have not only made possible far closer co-operation in the conduct of the war, but have led to a better mutual understanding and greater solidarity among the Allies and thereby laid the foundations for a lasting friendship which will be of inestimable value when it comes to the building up of a new international order after the war has been won.

C. Inter-Allied Organisations.

In addition to the Conferences between the various Allies recorded above, a number of inter-allied executive bodies have been set up which have done an immense amount of invaluable work. As early as August, 1914, there had been established the Commission Internationale de Ravitaillement. This Commission was intended to co-ordinate the purchases of the French and British Governments, and the subsequent extension of its scope to cover purchases of other Allied Governments has enabled it more and more to prevent competition and to facilitate the satisfaction of the Allied demands. During the past year co-ordination has developed in an especial degree, particularly in regard to Allied Government purchases in markets outside the United Kingdom and the shipment of these supplies.

The system of joint purchases of *wheat, flour and maize* by the British, French and Italian Governments, which was initiated in December, 1915, reached a further stage of development a year later by the conclusion of an agreement between those Governments for the formation of the "Wheat Executive," consisting of one representative of each country, to purchase, allocate and arrange for the transport of wheat and flour (and any other cereal products which it might be subsequently decided to schedule under the agreement) for the three countries. The scope of the Executive has since been extended so as to include *maize, barley, rice, rye, peas, beans and oats*.

The establishment of this Executive has proved so useful that it was decided to set up similar bodies to deal with the supply of other requirements which lend themselves to similar treatment. An Executive for the joint purchase of *meat and animal fats* has recently been formed as the result of an agreement between Great Britain, France and Italy, and arrangements are now being made for this body to purchase these commodities for the other Allies also. Similar Executives have been or are being created for the purchase of *vegetable oils and oil-seeds, sugar and nitrate of soda*. Arrangements are also under consideration for the establishment of an Inter-Allied Committee to advise His Majesty's Petroleum Executive.

The measures which have been taken by the War Office to control the trade in *hides* have enabled the Commission Internationale de Ravitaillement to arrange for prompt supplies of *boots* at minimum cost to the Russian, Roumanian, Italian and Belgian Armies, while the control instituted by the Indian Government in April last over the trade in *Indian cow hides and calf skins* has enabled the British and Italian Governments to obtain their supplies of these materials from that source at a considerable reduction on the price they had previously paid when they were competing in the market against each other and against private traders.

A Committee has recently been formed under the Chairmanship of the Director of the Commission Internationale de Ravitaillement with the object of co-ordinating the supply of

wool and *wool products* (excepting cloth) for the Allied countries. All Allied demands for these materials, whether required for military or civilian purposes, are dealt with in the first place by this Committee.

The purchase of certain *explosives* and raw material for the manufacture of explosives in the United States is now effected solely by the British Government on behalf of the European Allies in order to avoid mutual competition in that market. It is proposed to establish an Inter-Allied Committee to advise on this subject.

Arrangements have been made for all purchases of *Spanish lead* by the Allies to be effected through an Inter-Allied Committee.

As the result of a recent Inter-Ally Conference on metal supplies, it has been agreed not to pay more for *copper* in any market than the price fixed by the Government of the United States of America for supplies from that country.

In view of the large demands for munitions and other material made by the Russian Government through their representatives on the Commission Internationale de Ravitaillement, a Committee was established in March last, under the chairmanship of a member of the War Cabinet, whom the Commission Internationale de Ravitaillement might consult in regard to all questions of urgency or authorisation on which a Cabinet decision might be required. The Committee worked in conjunction with representatives in Petrograd, which arranged with the Russian authorities the most suitable types of articles required and indicated the relative urgency and importance of the various demands. The special information thus available to the Committee has enabled it to give considerable assistance to the Commission in connection with Russian supplies, and more recently Roumanian questions also, where the same problems of transport are involved. At the end of the year the operations of the Committee were practically in abeyance owing to events in Russia itself.

As regards Roumania, an Inter-Ally Committee has been formed at Jassy to co-ordinate the demands and control the supply of materials for that Ally, and a similar organisation is being arranged in regard to Greek supplies. Both these Committees will work through the Commission Internationale de Ravitaillement in London.

With the entry of the United States into the war and the consequent complication, the necessity arose of setting up a special body to deal with the question of Allied purchases in America. At the request of the United States Government His Majesty's Government have consented to participate in and organise in London an Inter-Ally Council, comprising representatives of France, Russia, Italy and Great Britain, to examine and

co-ordinate the requirements of the Allied Governments in the United States and so far as possible to determine priority between the countries named in the supply of the materials and finance. The Council is under the presidency of the Assistant Secretary to the United States Treasury. The result of this organisation, combined with the establishment in the United States of the War Industries Board, should be to prevent competition between the Allies in the United States, to effect economy in shipping, and to enable the United States Government to obtain an accurate purview of the duly authenticated requirements of the European Allies and to arrange for and control their supply in the most efficient manner.

By an agreement come to in December, 1916, between the British and French Governments, and subsequently extended to the Italian Government, all chartering of neutral tonnage is controlled by means of an Inter-Ally Executive in London. The importance of this matter had led in April, 1916, to the establishment of an Inter-Ally Committee under the chairmanship of the Director of the Commission Internationale de Ravitaillement for the purpose of securing neutral tonnage for Allied Government service at the most favourable rates. By the agreement referred to, all negotiations for the charter of neutral vessels to the Allied Governments or their nationals were centralised in the Executive, which held its first meeting on the 15th January, 1917, and has allocated since that date over 1,000,000 tons of neutral shipping amongst the three Allies represented. Proposals are now under consideration for the establishment of an Inter-Allied Council to advise on general questions of transport.

CHAPTER IV.

THE BLOCKADE.

One of the most important weapons in the hands of the Allies is that of the blockade supplemented by the policy of the Statutory List. The chief object of the Statutory List is to avoid the anomaly of permitting trade between British subjects and firms "of enemy nationality or association," who were in many instances actively working against us by propaganda, supplying enemy vessels, or inciting to sabotage, and by withholding British goods and facilities of all kinds from such firms to shake their financial position or even force them into liquidation.

The policy has been amplified in many directions since its inception, but principally in two, viz. :—

1. The withholding of financial facilities from listed firms has led to the development of the financial blockade, which is now administered by a distinct section of the Ministry of Blockade.
2. The significance of the term "facilities" has been largely amplified, and a measure which was originally intended to entail the cutting off the listed firms from direct relations with the United Kingdom and the Dominions only has been extended into an attempt to impose an almost complete embargo on their trade.

The chief method by which this amplification of the policy has been effected has been the conclusion of a series of agreements with neutral shipping companies, by which the companies have undertaken to respect the Statutory List in the same way as British companies. The weapon in the background during such negotiations has been the British control of bunker facilities and the powers wielded by the Inter-Allied Chartering Committee.

A very considerable amount of success can fairly be claimed for the policy. In the Far East, where, owing to our ex-territorial jurisdiction, the attack on enemy firms was begun some six months prior to the passage of the Extension of Powers Act, the German commercial establishments have been almost completely destroyed and recent events will probably make it possible to complete the work.

In South America, thanks largely to our agreements with American shipping companies, the financial stability of enemy firms in South America has been very generally shaken, and, in some cases, an enemy firm, such as Brauss, Mahn and Co., at one time agents for the German Government in the Argentine, have been forced into liquidation. In other instances, firms

containing certain, but not a predominant, enemy interest have been obliged to eliminate this interest. One example is that of the Sociedad Exportadora, of Paraguay, which now carries on as a genuine neutral firm a large business in hides with the Allied Governments.

In Europe the policy has perforce been so wholly merged in the general policy of the blockade that it is more difficult to estimate its results as an independent measure. But in Spain, for which country the task of estimating results is easier than for those contiguous to Germany, the policy has worked admirably, and it is considered to have gone far to counteract the more insidious methods of German propaganda.

In all countries the moral effect of the list has been very pronounced, and a definite stigma is attached to the inclusion in the list, an effect which has naturally been accentuated with the growing dislike of the world in general for German objects and methods.

Turning to Blockade, by the end of 1916 the system of the Blockade had reached a high point of elaboration. It was based upon—

- (a) Vigilant scrutiny of the transactions of all suspect neutral traders and the listing of all who habitually assisted enemy trade.
- (b) Rationing schedules showing the normal requirements of all the European neutrals in respect of all the more important commodities which they obtain from overseas.
- (c) Agreements with neutral shipowners, traders and associations of traders under which the contracting neutrals gave certain undertakings in consideration for special facilities for their shipments. Many of these agreements contain rationing clauses which make it possible for His Majesty's Government to detain automatically any excessive shipments of the articles in question.

Broadly speaking, it may be said that by December, 1916, all, or almost all, the oversea trade of Germany had been stopped. There was still a little leakage in respect of the trade from the Dutch colonies, which, when we were not in so strong a belligerent position, we had to deal with specially, but it only affected a few articles like tobacco, cinchona, and, even so, the amounts were relatively small. We could, in fact, claim that the German attempt to interpose the border countries for the purpose of pursuing the great overseas trade which they had previously carried on from German ports was definitely defeated.

Beyond this the main pre-occupation of the Ministry of Blockade has been directed to diminishing the trade between the border neutrals and Germany. It was impossible to get at this trade directly for obvious reasons, nor had we any belligerent

right which we could enforce in the Prize Court to stop the import into a neutral country of goods which might be used to produce other goods which were to be sent into Germany. All we could do was, firstly, to use such means of economic pressure as we had to induce the neutrals to forego their German trade, and, secondly, to buy, as far as we could, surplus products which otherwise would have gone to Germany. That this policy of economic pressure and purchase was not altogether unsuccessful is proved by the following figures :—

- (1) Purchases of fish and fish products in Norway by His Majesty's Government since January, 1916, 455,805 tons.
- (2) Fresh fish exports from Holland to Germany reduced from 38,451 tons for the period 1st November, 1915, to 31st July, 1916, to 5,350 tons for the corresponding period 1916-17.
- (3) Exports of herrings from Holland to Germany reduced from 100,659 tons in 1915 to 15,898 tons in 1916.
- (4) Agricultural produce exports from Holland to the Central Powers reduced from 287,820 tons for the first six months 1916 to 58,114 tons for first six months, 1917.
- (5) Cattle exported from Holland to Germany in (a) first months 1916, 33,332 head; (b) first six months 1917, nil.

Notwithstanding these encouraging results, we had not the necessary lever to get at the root of the evil, and foodstuffs especially continued to go into Germany in considerable volume.

With the German declaration of unrestricted submarine warfare on the 31st January and the breaking off of relations between Germany and the United States, a new chapter opened.

In the first place, neutral shipping was largely interfered with, and, secondly, a large number of agreements had been made with shipping lines and shipowners under which they brought their ships into a British port for examination, while such vessels as were not under agreement to call were sent in by our naval patrols. This, of course, involved their going through what the Germans called the danger zone, and there was, therefore, a considerable possibility that neutral shipowners would throw over their agreements and break the blockade.

Two steps were taken to deal with the situation. In the first place the Blockade Order in Council of the 16th February, 1917, was issued, the effect of which was to make vessels trading to and from neutral ports in Europe liable to the risk of capture and condemnation if they were found attempting to evade calling for examination at a British port; and, in the second place, it was announced through the public press that neutral vessels would, on certain conditions, be allowed the privilege of calling

for examination at certain British ports outside the United Kingdom such as Halifax in Nova Scotia instead of at Kirkwall, and that British bunker coal would only be allowed to those neutral vessels which undertook to call at an appointed British port and perform certain services in return. Concurrently with these measures insurance on favourable terms was laid open to all vessels engaged in trading in the Allied interests, and His Majesty's Government further offered to hire or purchase large blocks of neutral shipping.

These expedients have, on the whole, worked exceedingly well. There has been no serious attempt to break the blockade; and, on the other hand, the power to give or refuse what are called "Halifax facilities"—that is to say, the privilege of being examined outside the danger zone—has furnished us with a powerful inducement to neutral shipowners to comply with the various blockade and shipping requirements that we have put forward. As an indication of the success of our policy, it is sufficient to mention that there has been an increase of about 50 per cent. in the amount of neutral tonnage employed in Allied trades over the figure for the same trades in February, 1917, and this represents no less than 1,000,000 tons of additional tonnage.

The other great blockade event of this year has been the declaration of War between the United States and Germany, followed by similar declarations from, or the rupture of relations by, a considerable number of South American States. This has enabled us and our Allies to stop imports to the border neutrals at the source.

This method of stopping the export to Germany of home produce from the border neutrals is, strictly speaking, not a blockade measure at all, but the exercise of the sovereign rights of the Allied and co-belligerent States to impose conditions upon their trade with the border neutrals. The process belongs juridically to the category of commercial treaties rather than to that of blockade or the like; but in substance the effect is the same as that aimed at by the blockade, namely, the cutting off of our enemies from all external trade.

Public attention has been fixed, not unnaturally, more upon the food blockade of Germany than anything else, but it is very doubtful whether this is its most important aspect. The evidence is strong to show that Germany is also suffering gravely from the want of such things as wool, leather, cotton, rubber, and so on.

It is hoped that we may see considerable results in the future from the new forms of pressure which the entry of America into the war has enabled us to employ, all the more so since the purchase agreements on which we have been compelled to rely, in the absence of a lever such as we now possess, have involved us in the expenditure of large sums of money in Scandinavia and Holland, which expenditure has become more difficult to provide for owing to the exchange position in those countries.

CHAPTER V.

THE WORK OF THE NAVY IN 1917.**(a) Administration.**

In one respect at least the year 1917 has been more typical of the war record of the British Navy than any other since the commencement of hostilities. The silence of its incessant work has been broken by no important action. The manifestations of its energy have been felt rather than seen, and so it was in the majority of those half-forgotten years of bygone wars when its effect upon the issue was telling most strongly. Of no period was this more true than of the latter half of the last great war—the period between Trafalgar and Waterloo. Of that time Mahan has written: “There went on unceasingly that noiseless pressure, . . . that compulsion, whose silence when once noticed becomes to the observer the most striking and awful mark of the working of sea power.” So the past year has left its impress on history, but the thought and labour that have gone to produce the result have been beyond anything that filled the years after 1805. At that time naval warfare had become almost stereotyped—the problems presented were old ones and the means of solving them well known. But now it is in a restless condition of development; for scarcely two months together does it present the same difficulties; and in no year more than 1917 did its unstable condition call for more kaleidoscopic changes of plans and methods. From top to bottom continual shifts of system and practice were needed to keep the developments already inaugurated abreast of requirements, and nowhere are the resultant changes more conspicuous than at the centre of direction itself. The general principles of all the changes made at the Admiralty during the war have been twofold; first, the expansion of the Naval Staff (or War Staff as it was formerly called) and its better organisation to deal with the new problems and developments; secondly, the filling of the important executive and administrative posts at the Admiralty by officers fresh from the sea, who have distinguished themselves in the conduct of operations afloat and have direct personal knowledge of changing sea conditions and of the actual requirements of the Service afloat.

The first administrative change was due to the activities of the enemy submarines. In this direction lay the most conspicuous of the new developments, and the great and increasing burden which it rapidly imposed upon the War Staff at the Admiralty called most urgently for attention. It indeed soon became evident that a special organisation must be set up to cope with the work, to devote itself solely and entirely to the direction and development of the various offensive and defensive measures that were in operation, and to devise new methods. Accordingly, the Board decided to establish for this purpose a new anti-submarine Division of the War Staff, with an Admiral from the Grand Fleet as Director.

Scarcely less pressing was the expansion of aerial warfare, and this led to the second change which finally recognised the status of the new arm by the appointment of the Director of Naval Air Services to a seat on the Board of Admiralty as Fifth Sea Lord.

On May 14th, after the new Board of Admiralty had been enabled to gain experience of the practical working of the reorganisation which they had instituted, public announcement was made of a further series of changes. Their object was to carry further the efforts already made to separate war direction from administrative work. The most pressing need was to free the First Sea Lord and the heads of the Naval Staff, as far as possible, from administrative work in order that they might concentrate their attention on the important issues relating to the naval conduct of the war. The First Sea Lord assumed the additional title of Chief of the Naval Staff, and two other of the heads of the War Staff were appointed to be additional members of the Board of Admiralty—one as Deputy Chief of the Naval Staff and the other as Assistant Chief of the Naval Staff.

On the administrative side, the first requirement was to strengthen the shipbuilding and production departments of the Admiralty by providing an organisation comparable to that which had supplied the Army with munitions, and, further, to develop and utilise to the best advantage the whole of the shipbuilding resources of the country, and concentrate all these services under one authority. With this object in view, Sir Eric Geddes was appointed an additional member of the Board of Admiralty with the title of Controller and the honorary and temporary rank of Vice-Admiral, and was made responsible for fulfilling the shipbuilding requirements of the Admiralty, War Office, Ministry of Shipping, and all other Government departments, and also for the production of armaments, munitions, and material of all kinds for the Navy.

Under this organisation of the business, the Third Sea Lord became responsible for the types and quantities of ships and of all material for the Fleet, and for the design thereof in conjunction with the Controller, while the Controller took direct charge of the manufacture, inspection, maintenance and repair, and all purchase and contract business. The Controller took over from the Ministry of Shipping the purchase, design, manufacture, and repair of standard and other mercantile ships of all classes, and he was appointed a member of the Shipping Control Committee. When the Ministry of Shipping was formed, the Shipping Controller had taken over from the Admiralty the bulk of the work of the Transport Department of the Admiralty, and he had also assumed the responsibility for merchant tonnage construction. The latter now reverted to the Admiralty. In order to assist the Controller in his onerous duties, three new Deputy-Controllerships were created, *viz.*, for Dockyards and Shipbuilding, for Auxiliary Shipbuilding, and for Armament Production (including Aircraft). The design and production of all heavier-than-air aircraft, however, remained with the Air Board and Ministry of Munitions.

On July 18th, 1917, following upon the appointment of Sir Edward Carson to be a member of the War Cabinet, Sir Eric Geddes became First Lord of the Admiralty, and Mr. (now Sir) Alan Garrett Anderson, late Vice-Chairman of the Wheat Commission, succeeded to the post of Controller. A few weeks later Sir Rosslyn Wemyss was appointed Second Sea Lord.

Towards the end of the year the process above described was given a further advance. On September 27th, 1917, Sir Rosslyn Wemyss was appointed to the new post of Deputy First Sea Lord, created in order to free him from the administrative work connected with personnel which had hitherto devolved on the Sea Lord next in seniority to the First Sea Lord. He was made a member of the Naval Staff, and consequently would be able to act for the Chief of the Naval Staff in his absence, and generally to assist him in important matters of Naval Staff work. The duties of the Deputy Chief of the Naval Staff and the Assistant Chief of the Naval Staff were defined respectively as the conduct of operations and movements (D.C.N.S.) and anti-submarine, mine-sweeping, convoy and trade matters (A.C.N.S.).

Changes of some importance also took place in the arrangements for dealing with Admiralty business with a view to freeing it from excessive centralisation whilst at the same time improving co-ordination. The members of the Board, in addition to dealing individually with the work allotted to them under the Table of Distribution of the business of the Admiralty, were grouped into two formal committees, namely, the Operations Committee and the Maintenance Committee, each of which meets once a week or more often if necessary, the First Lord being *ex-officio* Chairman of both Committees.

The Operations Committee consists of the Naval Staff members of the Board, and deals with large questions of Naval strategy, with the scale of provision and equipment of the Navy as a fighting force, and with its efficiency, organisation, and utilisation.

The Maintenance Committee consists of the six Members of the Board concerned with Personnel, Material, Supply, Works, Production and Finance, and deals with questions affecting these matters, and with the fulfilment of the demands of the Operations Committee and the Naval Staff. The Deputy First Sea Lord forms the link between the operational and maintenance sides of the Board.

The Board itself also meets once a week, and more often if necessary, but matters coming within the administrative spheres of the different Members of the Board, if they fall within certain defined categories of importance, are first referred for consideration to the appropriate Committee of the Board, which either arrives at a definite decision or refers the matter for decision or confirmation to a full meeting of the Board as the nature and importance of the subject may require. The effect of this re-organisation of the Board procedure has been to decentralise the

administration, but at the same time to strengthen the control of the Board over the business as a whole and speed up the machinery of discussion and decision.

Simultaneously, certain further additions have also been made in the Naval Staff organisation and personnel, principally in the form of constituting on the operations side a Plans section composed of younger officers with recent sea experience in the Grand Fleet. By the various measures adopted, there has been added to the ripe and valuable experience of the Officers who have served at the Admiralty for considerable periods (which experience cannot be dispensed with), the latest knowledge of naval warfare derived from intimate association with the Fleets at sea, while the Naval Staff at the Admiralty will be in increasing personal touch with the Fleets and their requirements.

(b) The Submarine War.

The Naval operations for the year fall as usual under the five main objects which it is the purpose of the Navy to achieve. The first is to meet, and if possible, annihilate the enemy's armed forces; the second to prevent supplies reaching the enemy; the third to ensure that supplies come to this country; the fourth to stop invasion or raids on the British coast; the fifth to maintain the sea communications of the armies fighting on the various fronts.

The battle of Jutland had not changed the general situation. The enemy fleet still maintained a defensive policy, remaining in the security provided by elaborate minefields, supported by a system of coast defence far more complete than is to be found in any other part of the world, as an adjunct to which they had their outpost in the strongly defended island of Heligoland, the latter also serving as an advanced base for their destroyers, submarines, aircraft and patrols. In these circumstances it has not been possible to make an attack on the High Seas Fleet in the past year, and all the Grand Fleet has been able to do is to maintain an incessant watch that no opportunity may be missed of bringing the enemy's fleet to action or attacking any of its units that may venture to sea.

Condemned to inactivity in its primary duty the Navy has unceasingly pursued the other objects of naval policy. The blockade has been tightened. The intervention of the United States in April, 1917, both facilitated the work of the Navy and relieved it of a measure of the heavy responsibility which it had hitherto supported. From time to time statements have been made in Parliament on behalf of the Ministry of Blockade which have clearly indicated the increasing success with which this economic pressure has been applied to the enemy. At the same time the Fleet has been responsible for conditions at sea which have not encouraged the enemy to make any attempt to invade these islands or the territory of any of our Allies, or to recover any of his lost possessions.

All this work has been comparatively simple. The Navy's most arduous task has been the incessant struggle to guard our lines both military and economic, and no work it has ever had to perform has called for more exacting toil and devotion or higher technical skill. The result has been to defeat the enemy's purpose. In the opening months of the year, he announced that he had determined to resort to unlimited submarine warfare. On 31st January the German Government presented a note to the United States Ambassador in Berlin, in which it was declared that Germany "must abandon the limitations which it had hitherto imposed on itself in the employment of its fighting weapons at sea." A memorandum defining wide zones around Great Britain, France, Italy and in the Eastern Mediterranean, as blockaded areas formed an annexe to the Note. In these Sperrgebiete, all sea traffic, without further notice, was to be prevented "by all weapons" from 1st February. The United States was to be allowed access to the port of Falmouth with one steamer a week under stringent conditions, and under the same conditions one Dutch paddle steamer was to be allowed to ply between Flushing and Southwold.

After delivering a justification of the new policy to the Reichstag, Herr von Bethmann Hollweg, the Imperial Chancellor, received a number of German politicians who apparently still felt some doubt as to the wisdom of the course adopted. Asked whether Germany would not lose more than she would gain by her new policy, the Chancellor replied: "The Blockade must succeed within a limited number of weeks, within which America cannot effectively participate in the operations." And he added that the decision to apply submarines unshrinkingly is based on the Admiralty's calculations that the world tonnage, which is practically all at the disposal of the Entente, has reached the minimum below which the Entente cannot continue the war. In order to free German submarines from embarrassment in conducting this ruthless war on unarmed ships by day as by night, warning was given that in future "traffic of hospital ships on the military routes for the fighting forces in France and Belgium, within a line drawn between Flamborough Head and Terschelling, on the one hand, and from Ushant to Lands End, on the other, would no longer be tolerated." The excuse for this threatened violation of the Red Cross was that the German Government "have conclusive evidence that in several instances enemy hospital ships have often been misused for the transport of munitions and troops." The British Government denied this allegation, which they have conclusively disproved, and pointed out that, if any suspicion existed, the German Government had the right under the Hague Convention to search such vessels.

The new policy of the enemy thus announced added materially to the responsibilities of the Navy. To meet this new and serious menace drastic steps had to be taken to supplement those adopted in the previous December and January. The Admiralty realised from the first the character of the emergency, and the Anti-Sub-

marine Department was very largely expanded and strengthened. At the same time more aid was sought of mechanical engineers and physicists, and the best scientific brains were brought to bear on the problem. From all parts of the world suggestions were received as to new methods which might be employed in combating the submarine, and all these suggestions were investigated, either at the Admiralty or by the Board of Invention and Research, under Lord Fisher. Attention was also directed to the adoption of further means for the protection of merchant ships.

For effective measures against the submarine, every device both offensive and defensive had to be utilised, and their elaboration was a matter of time. In many cases scientific research, extending over many months, was necessary before action could be taken. In other instances, the devices adopted involved extensive work in the shipyards and workshops of the country. Day by day the naval departments specially concerned gained fresh experience of the manner in which the enemy was conducting his operations and fresh expedients were examined. In circumstances of much difficulty the Admiralty adopted measures of all kinds with the object of reducing the losses of merchant ships at sea, and eventually of overcoming entirely the submarine menace. Prompt and vigorous action was taken to push on with the arming of merchant ships, which often involved the strengthening of the ships and therefore occupied time; a system of convoying merchant ships was introduced; instructional classes for officers and men of the merchant navy were also started at selected ports, the object being to inform merchant officers of the best methods of detecting and eluding the enemy's underwater craft in various ways, and to train deck hands in the use of the guns and other weapons and devices which they would have to handle at sea. By common consent the greatest benefit has resulted from these classes. The greater part of the merchant fleet has been defensively armed during the past year, owing to the great efforts that have been made by all concerned in the direction, supply and manufacture, and a large proportion of the personnel has received specialised instruction.

Simultaneously, steps were taken to increase the number of auxiliary patrol vessels of various descriptions available for hunting down the enemy's submarines, and to press on the construction of merchant shipping in order to make good the losses suffered at sea. Though the Admiralty have always had first claim on the shipbuilding resources of the country, progress was retarded at first by shortage of material and shortage of labour. In spite of these difficulties, a large number of new destroyers have been built, and at the same time the auxiliary patrol services have been expanded enormously so as to deal with the nefarious submarine and minelaying methods of the enemy. Before the outbreak of war there were under 20 vessels employed as minesweepers and on auxiliary patrol duties. To-day the number of craft used for these purposes at home and abroad is about 3,400, and is constantly increasing. In this

connection, notice should be taken of the skilful and devoted services rendered in all weathers by the officers and men of the minesweeping and auxiliary patrol services. For the most part these ships are manned by seamen, who, before the war, were unassociated with the Navy, and it is impossible to pay too high a tribute to the manner in which they have carried out their arduous duties. The ruthless nature of the attack they had to meet, so far from quelling the spirit which the war had re-awakened, seemed only to make it burn with greater ardour. Nor was adaptability far behind their good equipment, and in sea-going merchant ships this was specially noticeable in the increasing success of those which were suitably armed in protecting themselves against submarine attack. It is not too much to say that without this willing and capable co-operation the Navy could not have met the formidable menace as it has been met.

A new feature of the means adopted for the protection of trade against submarines has been a return to the convoy system as practised in bygone wars. It has been markedly effective in reducing the losses. During the last few months over 90 per cent. of all vessels sailing in all the Atlantic trades were convoyed, and since the convoy system started the total percentage of loss to vessels while actually in convoy, whether as the result of enemy action or marine risks, has been 0·82 per cent. in the case of Atlantic convoys, and 0·58 per cent. in the case of all Mercantile convoy systems taken together.

The general results of the various measures adopted by the Admiralty to combat the submarine menace are sufficiently known from the weekly returns of shipping losses. But this is not the whole of the account, for the Admiralty have good reason to believe that since the beginning of the war between 40 and 50 per cent. of the German submarines which have operated in home waters have been captured, sunk, or otherwise destroyed.

What this measure of success has cost in effort, skill, and persistence can only be realised by fixing attention on the formidable capabilities of the new weapon in its recent developments. The German submarine has a surface speed up to 18 knots and a submerged speed of 10 to 11 knots. She carries from 15 to 20 torpedoes; she can travel 100 miles completely submerged; and she can remain under water sitting on the bottom for a period up to 48 hours. A submarine attacking with a torpedo only shows about 3 inches of periscope at intervals, with the result that few ships which are torpedoed ever see the submarine which has carried out the attack. The range of the torpedoes fired by a submarine is anything up to 5 miles, and the speed of the torpedo is as high as 40 knots.

Yet, in spite of the insidious and far-reaching powers of the attack, its effect has been far below what the German people were promised. It is not possible, without affording valuable information to the enemy, to give the exact amount of tonnage that has been lost by the Allies during the intensive submarine warfare, but it may be stated that, whereas the German official figures for

September claim 672,000 tons, they sank less than one-half of this amount of all nationalities. Yet in September the overseas sailings of all ships were 20 per cent. greater in numbers and 30 per cent. greater in tonnage than in April.

The net reduction in tonnage is 30 per cent. less than the estimate framed last July by our own authorities of the probable losses in the second half of the year, and the total net reduction from all causes to 31st December, 1917, since the beginning of the war of ships of over 1,600 tons on the official register, is under $2\frac{3}{4}$ million tons gross, or 16 per cent. As against this, the mercantile fleet of the United States of America has very largely increased. During the greater part of the war period, it must be remembered, our shipbuilding resources have not been largely directed to merchant ship construction.

The general result of the German attack, therefore, though serious enough, is far from unprecedented. In the two years after Trafalgar, when our command of the sea was unquestioned, we still lost 1,045 merchant ships by capture, and in the whole period from 1794 to 1815 we lost over 10,000 merchant ships.

Nor should we lose sight of the very heavy losses sustained by the enemy in the present war. At the commencement of hostilities, Germany had 915 merchant ships abroad, of which only 158 got home safely; the remainder within a few days were cleared from the oceans, either captured or driven to shelter in neutral ports. In the aggregate the German Mercantile Marine consisted of over 5 million tons of shipping; at the present time nearly half of this has been sunk or captured by ourselves or our Allies, while the bulk of the rest is lying useless in harbour.

(c) Fleet Operations.

It is not yet possible to give any detailed account of the work of the Grand Fleet, in its monotonous and self-sacrificing vigil. It is always waiting its opportunity. But it must not be forgotten, though little or nothing may be heard of the Grand Fleet for months at a time, that it is the secure foundation for all the efforts of the Allies, and that in the main the issues of the War are dependent upon its ability to defeat the German High Seas Fleet if it should come out into the open sea.

On the Grand Fleet depends ultimately our present control of the sea communications of the world, which again involves the food supply of the Allies and the transportation of all our troops, munitions, and supplies; it is the pivot of all the smaller squadrons and vessels engaged in offensive and defensive measures against submarines, in minesweeping patrol duties, and the various other activities of the Navy in Home Waters and throughout the world.

How far from the truth is the German legend that the Fleet is always lurking in harbour appears from a record of its movements. During a recent month the mileage steamed by the battleships, cruisers and destroyers in Home Waters alone exceeded one

million miles, and it has been estimated that in the same period the mileage of the auxiliary patrol forces in Home Waters exceeded six million miles. It must always be borne in mind, in considering the relative calls upon the British and German Fleets, that Great Britain has 7,700 miles of coast line to defend, while there are only 290 miles of German coast on the North Sea.

Possibly the German tale is put about with some vague idea of irritating us into taking some ill-judged action. Possibly, too, it may have some influence of this kind, for the question is sometimes put why the Grand Fleet does not adopt an offensive policy against the High Seas Fleet; why it does not attack the German naval bases, since the enemy will not emerge. This is no new problem. The British Navy has been confronted with it in past wars, and no such policy has ever been adopted throughout its history. The problem is even more difficult now, for the arts of defence have progressed even more rapidly than the weapons of offence. With wireless telegraphy, aerial observation, and other devices, the range of sea vision has been enormously extended, and the element of surprise is more easily guarded against by a fleet in a defended port. Reverse the position and it is easier to appreciate what is involved by such an operation or series of operations as an attack on the High Seas Fleet in its bases. Imagine the enemy endeavouring to force an unwilling British Fleet out of one of our own main bases if these possessed land defences on the same scale as those of Germany.

It is not by such operations that the power of the dominant Fleet has ever made itself felt, but by the steadiness and extent of the pressure it can exercise on normal activities. Since the spring of 1915 the sea communications of the world—with the exception of waters into which the submarine can penetrate, where extra precaution has to be adopted—have been entirely free to us and to our Allies and have been absolutely denied to our enemies. But none the less the vigil must be incessantly maintained, since the enemy is always endeavouring to break the cordon and in isolated places may succeed. In the Pacific and Indian Oceans and in all parts of the world the Navy is quietly and unobtrusively carrying on this appointed task, and the fact that so little is known or heard of this phase of the naval war is the surest guarantee that it is being correctly performed. Apart from these self-contained squadrons of the Navy which are engaged on the sea communications and trade routes of the world and on other similar operations, we have large forces operating in conjunction with the French Navy in the Aegean Sea and with the Italian Navy in the Adriatic, and the patrol and convoy arrangements for the whole of the Mediterranean are now in the hands of a British Admiral. A number of our submarines have since the early months of the war been assisting the Russian Fleet in the Baltic, and but for the large amount of help the Navy has rendered to Russia in the protection and maintenance of Archangel and the other northern ports, she would have been for the practical purposes of the war almost a land-locked power.

Nowhere have these normal functions of the Navy been exercised with more productive effect and less public recognition of arduous and patient strain than in the blockade of the northern entrance to the North Sea. The distance to be patrolled from Scotland to Iceland and Greenland is over 600 miles. Gales are incessant, and the enemy's submarines are continually seeking to destroy the blockading vessels. Unremitting watch must be kept, day and night, and every vessel met must be stopped and boarded under the most difficult conditions of sea and weather. The large majority of the crews engaged in this work are men who prior to the war were serving in the Mercantile Marine; the skilled services of the men of the Newfoundland Royal Naval Reserve have been invaluable in the boat work that is entailed. The increasing efficiency of the arrangements for the blockade may be gathered from the statement that, whereas in the first few months of 1915 when these methods commenced it is believed that 256 out of 1,400 ships which passed our lines managed to evade the patrols, in a recent month not a single merchant ship trading with neutral countries escaped the vigilance of our cordon.

All this work has not been accomplished without a number of minor encounters with the enemy to relieve the monotony to which the enemy's attitude has condemned the Navy.

Apart from the intensified submarine war, comparatively few incidents have occurred at sea of outstanding importance. But the following perhaps may be worthy of notice.

The light forces attached to the Grand Fleet have taken part in several minor engagements, details of which have been published from time to time. Our monitors and other vessels in the Straits of Dover have frequently bombarded Zeebrugge and Ostend and engaged enemy destroyers, and the action in which the "Swift" and "Broke" sank two destroyers will ever remain one of the Navy's bright episodes.

The recent military operations in Egypt have been assisted by the Navy, which has contributed considerably to their success. In the Red Sea the enemy have been driven from their positions at Salif and Wej; and in this quarter of the globe the Navy's activities are as ubiquitous as in any other. In the Adriatic, two British light cruisers, in combination with Italian vessels, took part in an engagement with three Austrian light cruisers, while the British monitors have assisted the Italian naval attacks on the Carso and later in their defence of their positions on the Piave. The part taken by the flotilla of gunboats during the advance on Bagdad is well known and is but an example of the varied types of warfare on which the Navy is constantly employed.

During the year the Harwich flotillas have maintained their offensive policy against the enemy. Our Navy has intercepted numerous German and neutral merchantmen proceeding from

Antwerp and Dutch ports to Germany, capturing or sinking 6 large and 18 small merchant ships.

(d) Other Operations.

Whilst great attention is drawn to the work of the German submarines, little is heard of the work of our own submarine flotillas. The target of the German submarines is easily found owing to the nefarious methods of warfare on merchant shipping which they have chosen to adopt. The opportunities of our own submarines are very limited, since the warships of the enemy give few opportunities for attack, whilst in their operations against commerce our submarine commanders confine themselves to legitimate and humane warfare. Nevertheless, when it becomes possible to give full details of their exploits, it will be found that their successes have been marked in proportion to their opportunities. All will remember the gallant work of our submarines in the Dardanelles operations, when E. 14 and E. 11, for example, penetrated the defences of the Narrows and maintained themselves for long periods in the Sea of Marmora, inflicting great losses on the warships, transports, and other vessels of the Turkish Navy and damaging their land communications; also the splendid work performed throughout the war by our submarines attached to the Russian Fleet in the Baltic and especially during the recent attacks by the Germans on the islands in the Gulf of Riga.

It is not desirable to give any particulars of the great expansion that has taken place during the past year in the submarine services in common with all other branches of the Navy, nor of the feats that they have performed, but it will be of interest to state that during the war our submarines have made upwards of 40 successful attacks on enemy war vessels and more than 270 successful attacks on other enemy craft.

The Royal Naval Air Service at the outbreak of war possessed a personnel of under 800; at the present moment the numbers approach 46,000 and are continually increasing. Their matériel after the outbreak of war consisted of seven non-rigid airships, considerably less than 100 efficient seaplanes and aeroplanes, and no kite balloons. At the present time there are some 176 airships and kite balloons, well over 2,500 seaplanes and aeroplanes, and a great number of motor boats and subsidiary appliances of all kinds.

Attention has been called to the work of the squadrons in Flanders. Mention must also be made of the great value of the air services in combating the submarine menace round our coasts. Here, again, detailed particulars of the services performed cannot justifiably be given, but as illustrating their extent it may be stated that in one week the aircraft patrol round the British coasts alone flies 30,000 miles. The Royal Naval Air Service during the past year has also rendered much assistance to our armies in Macedonia, Palestine, and East Africa, and squadrons have been attached to our army on the Western Front, where they are believed to have destroyed or driven down out of control

nearly 400 enemy machines during the last year. The Commander-in-Chief, Sir Douglas Haig, has borne testimony to their efficiency and gallantry. In other fields of action, the bombing of the Turkish Fleet in the Golden Horn, in July, and the destruction of the bridge at Namur, in September, will be remembered out of innumerable gallant and heroic exploits.

Although now technically a part of the Army, and serving as a unit of the British Expeditionary Force on the Western Front, mention must be made of the Royal Naval Division, who are worthily upholding their tradition of Gallipoli, and are acknowledged to be second to none in the manner in which they carry out the duties and tasks allotted to them.

(e) **Transportation.**

Since the beginning of this year the Transport Service as a whole has been incorporated in the Ministry of Shipping, but certain essentially naval services, such as the transport of troops, are still the responsibility of the Admiralty, and the Navy is, of course, entirely responsible for the protection and safety of all the transport services as well as for all the military measures connected with the Mercantile Marine. The record of what has been done by the transport services for the Armies of the Allies shows a stupendous amount of work accomplished, which constitutes one of the brilliant achievements of the war. There had been transported overseas up till the end of August—the last date for which complete statistics are available—some :—

13 million human beings—combatants, wounded, medical personnel, refugees, prisoners, &c ;

2 million horses and mules ;

$\frac{1}{2}$ million vehicles ;

25 million tons of explosives and supplies for the armies ;

and also some 51 million tons of coal and oil fuel for the use of our Fleets, our Armies, and to meet the needs of our Allies.

The losses in personnel, out of the 13 million men who have been transported, amount to only about 3,500, in spite of the isolated and unpreventable mishaps which occur occasionally. It is a figure which speaks for itself. Of these 3,500 casualties, about 2,700 were caused by the action of the enemy (and it must be noted that this number includes 542 in hospital ships), while the remaining losses occurred through the ordinary perils of the sea.

The operations of the sea are on such a large scale that it is difficult to realise all that is involved in sea transportation ; for example, over 7,000 personnel are transported, and more than 30,000 tons of stores and supplies have to be imported daily into France for the maintenance of our own army. About 567 steamers, of approximately $1\frac{3}{4}$ million tons, are continually employed in the service of carrying troops and stores to the Armies in France and to the forces in various theatres of war in the East. When the vast number of voyages entailed by these operations is considered, some idea will be gained of the organisation that is

required to ensure efficient and smooth working, and also of the calls that are made upon the Navy for safe conducts. When, further, the almost insignificant losses are examined, it will be realised that not only this country, but also our Allies, owe much to the British Navy in association with the Transport Services.

(f) Construction and Supply.

During the past year the Naval Service has undergone continual expansion in order to enable it to meet every demand made upon it, not only in the seas surrounding these islands, but in the Mediterranean, the Persian Gulf, the Red Sea, the Arctic Ocean, the Pacific, and the Atlantic, where it has co-operated with the Naval forces of the Allies. The displacement tonnage of the Royal Navy in 1914 was 2,400,000 tons. To-day it has increased by 75 per cent. The ships and vessels of all kinds employed in the Naval Service in September, 1914, after the whole of the mobilisation had been completed, had a tonnage of just over 4 million; now the figure is well over 6 million. Transports, fleet attendants and overseas oilers and similar auxiliary vessels at the outbreak of war numbered 23; the Admiralty to-day control nearly 700 such craft. The strength of the personnel, which was 145,000, has been increased to 420,000.

From these brief particulars regarding the ships and their manning, an estimate can be formed of the expansions that have been made in the auxiliary services, such as guns, torpedoes, munitions, and stores of all kinds, anti-submarine apparatus, mines, &c., and some idea is gained of the demands that have been made upon the great army of workers on shore, the men in the Royal dockyards and arsenals, in the shipyards, the engine shops, and the factories, without whose help the Fleet could not be maintained as a fighting force.

As regards warship and auxiliary ship construction, the output during the last 12 months has been between three and four times the average annual output for the few years preceding the war.

The Admiralty now control all the dry docks in the country, and of these 235 of considerable size (excluding those allotted to the Royal Navy) can be devoted to merchant ship repairs. The remarkable figure of use, of 90 per cent. of the maximum time has been achieved in the operation of these docks, and 250 merchant ships are being repaired each week, either in dry dock or afloat.

Since the beginning of the war, 31,470 British war vessels have been placed in dock or on the slips, including auxiliary craft, and the number of vessels completing repairs during a recent week (by no means abnormal) was 225. These figures do not include repair work carried out to the vessels of our Allies, and illustrate the strain upon our Royal Dockyards.

(g) Inter-Allied Co-operation.

In any survey of the naval situation during the past year special

acknowledgment must be made of the help which our Allies have rendered and are rendering to us. We act in the closest co-operation with the French and Italian Navies. Japanese destroyers are now co-operating with our forces in the Mediterranean, and United States destroyers and ships of other classes are working in the Atlantic off Ireland, Gibraltar, and elsewhere. All the Allies take their share of the combined operations abroad in accordance with the general policy agreed to. The harmonious working of the Allied Navies and the absence of any local difficulties or jealousies is one of the happiest features of the Alliance. This has been exemplified, not only in common operations at sea, but also in the relations of the Marine Departments with the Admiralty and of the various Allied Naval Conferences which have been held during the year.

As the outcome of these closer relations, the following announcement was made on December 15, 1917, of the creation of a permanent Allied Naval Council in order to ensure the closest touch and complete co-operation between the Allied Fleets :—

“The task of the Council will be to watch over the general conduct of the naval war and to ensure the co-ordination of effort at sea as well as the development of all scientific operations connected with the conduct of the war. The Council will make all the necessary recommendations to enable the Government to make decisions. It will keep itself informed as to the execution of plans decided upon.

“The members of the Council will report to their respective Governments as may be necessary. The individual responsibility of the Chiefs of Staffs and of the Commander-in-Chief at sea towards their Governments as regards operations in hand, as well as the strategic and tactical disposition of the forces placed under their command, remains unchanged.

“It has been decided that the Council should consist of the Ministers of Marine of the nations represented and of the Chiefs of the Naval Staffs.

“As the meeting of the Council will, of necessity, be held in Europe, the Chiefs of the General Naval Staffs of the United States and of Japan will be represented by Flag Officers nominated by their respective Governments.

“The Allied Naval Council will be provided with a permanent secretariat, whose business it will be to collect and collate all necessary information, &c. The Council will meet as often as may be thought necessary under the presidency of the Minister of Marine of the country in which the meeting is held.

“The various Admiralties will furnish the Council with the information which is necessary for the work to be carried out.”

(h) Conclusion.

The time has not yet come to tell more of what the Navy has been doing for the common cause, but enough has been said

to show how it has been doing the old work in the old way. But it is not the old Navy with which we were long content. It is something much more expressive of the life of the many nations which make up the British Empire. The toil and the credit have been shared not only by the Dominions and Colonies overseas, but by the whole seafaring life of the people—merchant service, fishermen and many others who have felt the call of the sea. Hand in hand all have worked together to make a great organisation which has embraced the whole sea power of the Empire. For every state and member of our world-wide Commonwealth there has been but one sea and one concern—to serve wherever duty called or the common good had need of them.

CHAPTER VI.

THE MILITARY EFFORT IN 1917.**The Western Front.**

1. The general military situation in the early part of December, 1916, was—in France the Battle of the Somme had resulted in the definite relief of Verdun and had enabled the French to undertake successful attacks which rendered that place secure from assault, while on the battle front itself the enemy had been hemmed in the Valley of the Ancre into a narrow salient dominated on three sides by the positions we had seized.

On the Russian front, Brusiloff's offensive had given him possession of the whole of the Bukovina and of a considerable portion of Galicia, but these results had been neutralised by the enemy's invasion of Roumania, and about the time that the present Government took office, Bucharest had been evacuated and the Roumanian Army was in full retreat into Moldavia.

In Italy the Italians had captured Gorizia in the August offensive, and had advanced their line a few miles on the Carso.

On the Macedonian front, the Allies had captured Monastir and, obtaining touch with the Italian forces at Valona, had established a barrier north of the Greek frontier from the Adriatic to the Aegean.

In Palestine our forces had pushed slowly into the Sinai Desert, but the enemy still held El Arish, from which place he was in a position to threaten the Suez Canal and dominate the southern portion of the Sinai Peninsula.

In Asia Minor, the Russian forces on the Caucasian front had captured Trebizond and Erzinjan, but their left wing had been unable to make progress and the enemy, established well inside the Persian frontier, held the passes leading from Mesopotamia into that country.

In Mesopotamia our troops on the Tigris remained entrenched in close touch with the Turks, who held Kut-el-Amara.

In Persia itself, and on the Indian frontier, we had successfully disposed of most of the small bodies, led by enemy agents, who were endeavouring to foment trouble against us, but this danger could not be considered to be removed until direct access to Persia had been closed to the enemy.

In East Africa, General Smuts had driven the enemy south of the Central Railway, had occupied Dar-es-Salaam and all the ports on the coast, but the enemy was still in possession of some 80,000 square miles of territory between the Rufigi River and the Portuguese frontier.

2. Turning now to the events of the past 12 months in each theatre of war in which we have had troops engaged. On the Western Front the Germans, as a result of the heavy losses they had sustained in the battle of the Somme, and of the very unfavourable position in which they found themselves on that portion of the front, decided to undertake a retirement of about 30 miles on a front of 100 miles to a shorter line running from the neighbourhood of Arras to the Aisne, known as the "Hindenburg Line." In adopting this course the enemy's aim was to derange our plan of attack for the spring, to avoid battle as long as possible, to escape the unfavourable moral and material effects of further heavy casualties in defensive warfare, and to give time for his submarine campaign to take effect.

During the early part of 1917 our persistent pressure on the Ancre resulted in the enemy's position becoming even more disadvantageous to him, and in hastening his withdrawal before his rear lines of defence were fully completed. In the meanwhile, preparations for an offensive on a great scale were being made. In this offensive the French Army was to undertake the main attack on a front of about 40 miles on the Aisne, while the British Army was to co-operate by attacking beforehand on a front of about 20 miles east of Arras, with a view to drawing as many enemy divisions as possible to their front and thus assisting the main French attack.

The British attack was accordingly launched first on 9th April, and succeeded in gaining all its objectives, including the whole of the high ground running from north-east to south-east of Arras. The Vimy Ridge, an extremely strong position which had previously resisted all attempts at capture, forms part of this high ground, and was completely secured in the course of a few hours. During the next few days a further advance was made and the front of attack was extended both northwards and southwards, our troops pushing on to the neighbourhood of Lens.

3. On the 16th April the French delivered their offensive on the Aisne front, and in the course of the next few weeks succeeded in driving the enemy back for a considerable distance and in capturing the important ridge of the Chemin des Dames. Although important results were achieved in the course of these operations, our Allies did not succeed in gaining all they had hoped, and this comparative lack of success necessitated a continuance of the British operations at Arras, with a view to containing the German forces on our front and preventing them reinforcing their troops on the Aisne. Our pressure was, therefore, kept up in this quarter throughout the month of May. In June, July and August, a series of local offensives on the Lens front enabled us to establish our line in close proximity to and on three sides of that place, rendering the enemy's position a most disadvantageous one and inflicting heavy losses upon him.

During April and May the total Allied captures were 53,878 prisoners and 462 guns, of which 22,755 prisoners and 258 guns were captured by the British.

4. While these operations were being carried out, the British Army was making preparations for an entirely new effort, which had long formed part of our plans, on the Flanders front, where the enemy could not afford to retire without surrendering important strategical advantages. For the plan and conduct of these operations the British were alone responsible, and the part played by the French was an entirely subsidiary one, consisting, in the second stage of this attack, in the co-operation of a few French divisions on our extreme left. Our aim in this offensive was to secure the commanding ridge which runs in a semi-circle round Ypres from north-east to south, the capture of which would be of the utmost importance, because it would both remove the disadvantages inherent in the occupation of a narrow salient, and would enable us to dominate the muddy plains of Flanders, to which, if our attacks succeeded, the enemy would be confined during the winter. This new offensive commenced on 7th June, when our troops seized the Messines-Wytschaete ridge, a position of great strength and importance dominating the Ypres salient on the south. In the course of subsequent operations in this area our front of attack was extended and a considerable further advance was made east of the ridge. In the course of this battle we captured, between the 7th and 13th June, 7,257 prisoners and 67 guns.

5. This preliminary success afforded us the means of developing an offensive on a great scale east of Ypres, which was launched on 31st July on the front between Armentières and Steenstraete, the 1st French army co-operating on our left. This battle has secured for us eleven miles of the main ridge east of Ypres, including the village of Passchendaele and high ground of importance to the north of it. Our progress has been achieved in spite of every disadvantage due to quite exceptional weather, the rainfall of August being nearly $2\frac{1}{3}$ times the normal, and the waterlogged nature of the ground has imposed an extremely severe strain on the troops.

In these operations we captured between July 31st and November 18th 24,600 prisoners and 64 guns.

6. On November 20th we undertook an attack on a front of about 6 miles west of Cambrai, in which we relied for success on the effect of surprise and on the employment of a large number of tanks. This operation was in the nature of an experiment and differed altogether from our previous offensives, in which we had relied for success on a gradual advance on a broad front by successive stages, each stage being carefully prepared by artillery bombardment. The attack met with complete success, the enemy was completely surprised; the Hindenburg line and Hindenburg support line were broken through on the whole of this front, and an advance of about 8,000 yards was made. The front of attack was subsequently extended to about 10 miles, and our troops proceeded to consolidate a line with their right resting on the Scheldt Canal, the centre represented by the villages of Marcoing, Noyelles and Cantaing, and the left resting on the high ground at Bourlon Wood and running thence through

Moeuvres to our original line west of the latter village. The occupation of these positions constituted a threat to the German lines north of this front, as well as to the important railway centre of Cambrai, and the enemy proceeded to concentrate a large force with a view to recapturing the lost ground.

With this object he undertook an attack on 30th November on all three sides of the salient we were occupying, his aim being to drive in the flanks of the salient and to enclose the British troops within it. All the attacks delivered on the centre and left flank of the salient, though carried out in great strength and with the utmost desperation, were repulsed with very heavy loss to the enemy, but on the right flank the enemy succeeded in surprising our troops by a sudden assault and in breaking through the line for a considerable distance. Although immediate counter-attacks succeeded in driving the enemy back from Gouzeacourt to the ridge east of that village, he continued to retain possession of the high ground about Villers-Guislain, Gonnellieu and La Vacquerie, which afforded him observation over our communications in the salient and rendered that salient a somewhat contracted one. Rather than incur the heavy losses which would be entailed by the retention of these positions in these altered circumstances, Sir Douglas Haig decided to retire to the Hindenburg defences, which we continue to hold.

During the Cambrai operation we captured 11,300 prisoners and 138 guns. The enemy claims to have captured 9,000 prisoners. Our loss in guns amounted to 166.

Our retirement leaves us in possession of over 6 miles of the most elaborate system of defences which the enemy has ever constructed and of a vast series of underground shelters upon which masses of Russian prisoners and of French and Belgian forced labour have been employed for eighteen months. Our men are now using these shelters, while the enemy opposed to them is living in such defences as he has been able to improvise in haste. The effect of the enemy's surprise upon us has been graphically described by our correspondents at the front. From this we may judge the effect upon the enemy of an attack which came on him as a complete surprise, and penetrated his front on more than double the front, and got to more than twice the depth behind his lines that he succeeded in doing in his attack upon us.

Among other results which have been obtained by these operations is the fact that they have compelled the enemy to withdraw several divisions from the Ypres front, which has relieved the pressure in that quarter and enabled us to consolidate our position on the Passchendaele ridge. But it is also necessary to look beyond our own front for the results of this fighting. On November 20th, Italy was still in difficulties and the enemy had large numbers of troops set free from the Russian front which he might have used to overwhelm our hard pressed Allies. As a result of the battle at Cambrai these enemy troops have been diverted to the

Franco-British front, and therefore this battle has contributed as directly to the assistance of Italy as the troops we and the French have now fighting in that country.

On the whole of the British front since the beginning of the year our captures amounted to 73,131 prisoners and 531 guns.

7. Throughout the summer the Germans made continued efforts to recapture the positions taken from them by the French on the Chemin des Dames plateau, efforts which also had in view the reduction of the offensive power of the French Army by the wastage in men and the moral effect of further heavy fighting. These attacks, however, which cost the enemy disproportionate losses, did not succeed in preventing the French co-operating with us in our offensive nor in undertaking another local offensive at Verdun on 20th August, in which they regained almost the whole of the remaining positions lost by them in the spring of 1916 on both banks of the Meuse, and captured over 10,000 prisoners and 24 guns.

In addition to this success the French carried out a successful offensive at the end of October between Vauxaillon and Filain, north of the Aisne. The result of this fighting, in which the French captured 11,157 prisoners and 200 guns, was to drive the Germans off the entire length of the Chemin des Dames and to compel them to retire to the northern bank of the Ailette, abandoning to the French positions of great importance on a front of 18 miles. These successes, while displaying once again the magnificent fighting qualities of French troops, would never have been attained had it not been for our steady pressure on the Ypres front.

The Italian Front.

8. On the Italian front, an offensive carried out by the Italian 2nd and 3rd armies in May secured important mountain positions on the left bank of the Isonzo north of Gorizia, and also made some progress on the Carso. On August 19th the 2nd and 3rd armies undertook a second offensive, and in spite of the great difficulties of the terrain succeeded in capturing practically the whole of the so-called Bainsizza plateau and the hills to the south of it, taking about 30,000 prisoners and 145 guns. On September 20th it was decided not to proceed with the offensive, and the enemy took this opportunity to carry out a counter-offensive in the neighbourhood of Tolmino. A few German and Austrian divisions were transferred from other fronts for this purpose. This attack succeeded in breaking the Italian line, and a retreat was ordered on the entire front. The Italians are now holding the line of the Piave, where they have successfully resisted all the enemy's attacks, and their army, in spite of heavy losses in men and material, is displaying its former efficiency and fighting spirit. British and French troops were at once sent to support the Italians, and are now holding the line beside them. Full arrangements had been made early this year by the Allied Staffs

for this contingency, and the movements were carried out with the utmost speed permitted by the railways. With ample reserves at hand to support them, the Italians are now assured of time to reform their armies and make good, with Allied assistance, the equipment they have lost.

Salonika.

9. On the Salonika front no important operations have taken place since the capture of Monastir. In accordance with General Sarrail's orders an offensive took place in April and May, and in this the role allotted to the British Army was an attack west of Lake Doiran designed to precede the main offensive by the French, Serbians and Italians east of Monastir, and to draw the enemy to our front. The British attack achieved its object in containing a large number of Bulgarian troops and in inflicting severe losses on the enemy, but the main attack did not achieve any results of importance. Only minor engagements have since taken place, but the Allied Army continues to hold the greater part of the Bulgarian army on the Macedonian front and has prevented the transfer of troops to Roumania. During the past year the British army has captured 1,095 prisoners. During the summer our troops withdrew from the Struma valley on to higher and healthier ground. We have, however, recently re-established our line on the left bank of the river. On December 22nd the command of the Allied forces was taken over by General Guillaumat.

Palestine.

10. In Egypt it has been our policy, ever since the beginning of 1916, to secure control of the water-bearing areas in the Sinai desert, which offer the most favourable lines of advance against Egypt. Our immediate aim at the end of 1916 was to capture El Arish, the most important of these areas and the enemy's best advanced base. By the middle of December, 1916, the railway had been constructed to within 14 miles of El Arish; the place was captured on 21st December, and the garrisons of the remaining Turkish posts in the eastern part of the Sinai desert were rounded up in the course of subsequent operations, Rafa, on the Palestine frontier, being occupied on January 9th. By the time that we had secured our primary object, the defence of Egypt, the Turkish resistance in Mesopotamia had broken down, and the Russians were preparing to attack on the Armenian and Persian fronts, and it was then decided to push on beyond El Arish into Southern Palestine, with a view to containing as many Turks as possible on this front, and thus assisting the proposed Russian operations, in which our forces in Mesopotamia were co-operating. In accordance with these instructions, General Murray pushed on beyond Rafa during the latter part of March, to the neighbourhood of Gaza. This place was attacked on the 26th and 27th March, and in this action we inflicted heavy losses on the Turks, but failed to take the town. Subsequently, on

the 17th and 19th April, we captured a series of positions south of Gaza, and entrenched ourselves opposite the Turkish lines extending from that place towards Beersheba.

The summer was devoted to strenuous preparations for an advance into Palestine; in particular the railway was pushed up into the area close behind our defences, and a water supply for a large force was developed. At length, on October 31st, Sir Edmund Allenby, who had succeeded to the command of the army in this theatre, took the offensive, and by extremely skilful operations contrived to roll up the entire Turkish defensive line from its left, beginning with the capture of Beersheba. On November 6th our troops occupied Gaza, and proceeded to pursue the retreating Turks between the Judean highlands and the sea. The suddenness of our offensive had surprised the enemy, and the vigour of our pursuit left him no opportunity for resistance on any of his previously prepared lines of defence, which fell one after another into our hands. On November 17th we occupied Jaffa, which is 42 miles north of Gaza, and on the 22nd a British force advancing eastwards was within four miles of Jerusalem. After a short delay to relieve the troops conducting the pursuit, who had been fighting incessantly for four weeks, our advance was resumed on December 8th. An attack on the front west of Jerusalem, combined with an out-flanking attack from the south, resulted in the isolation of Jerusalem, which was surrendered on December 9th. On the night of December 26th the enemy made a determined attack on our lines north of Jerusalem which was repulsed with heavy loss. A counter-offensive by the British army was begun on the 27th, which resulted in driving the enemy back for a distance of some 9 miles and has greatly strengthened our positions covering Jerusalem on the north. Since October 31st we have captured over 12,200 prisoners and 99 guns. The primary object of these operations was to derange the enemy's plans for his much advertised offensive in Mesopotamia under the auspices of General Falkenhayn; in this they have been completely successful. Since January 1st, 1917, the Egyptian Expeditionary Force has taken 17,646 prisoners and 108 guns.

Mesopotamia.

11. In Mesopotamia the result of the unsuccessful attempt to relieve Kut in the spring of 1916 was that we had occupied an entrenched position opposite the Turkish lines at Sannaiyat on the left bank of the Tigris, about 16 miles east of Kut. On the right bank we had, in the course of the autumn, pushed on without fighting to within some 7 miles of Kut, and had constructed a railway across the desert from Skeikh Said for the maintenance of the force on this bank.

In commencing operations in this theatre on the 13th December, 1916, our plan was to contain as many enemy troops and to inflict as heavy losses upon them as possible, thus assisting a Russian offensive in the early spring on Mosul and Baghdad. Such good progress was, however, made in the course of our

operations on the right bank of the Tigris in December, January, and February that more important results than were originally contemplated appeared attainable. Accordingly, General Maude, after clearing the right bank of the river, effected a crossing in rear of the Turkish army, compelling the latter to undertake a hasty retreat, which, owing to the vigour of our pursuit, soon became a rout, this army practically ceasing to exist as a military force. On 11th March our troops entered Baghdad, and the remnants of the Turkish army retired up the Tigris and Diala. In the meanwhile our advance had necessitated a hurried retreat on the part of the Turkish forces in Persia, pursued by the Russians. Owing to the successful development of these operations, General Maude's original instructions had been altered, and he was now ordered to secure effectively the whole of the Baghdad vilayet. This was done in the course of a brilliant campaign between the Tigris, the Shatt-el-Adhaim, and the Diala rivers, in the course of which each of the two Turkish Corps operating on those lines of advance was defeated three times in succession and reduced to the defensive. During the hot weather our troops consolidated their position. At the end of September we resumed active operations, surprising a Turkish detachment at Ramadie, on the Euphrates, and killing or capturing the entire force, thus depriving the enemy of an important advanced base and greatly strengthening our position at Baghdad. We have since then much improved our position on the Diala by operations undertaken in October and continued early in December, by which we have secured important positions on the Jebel Hamrin ridge on both banks of the river. On the Tigris on November 2nd our troops attacked the Turkish advanced position north of Samarra. The enemy fell back hurriedly, abandoning the whole of his defences. On the 3rd our troops pushed on to reconnoitre the Turkish position at Tekrit, about 30 miles upstream from Samarra. Finding it lightly held, we decided to attack, and were completely successful; after clearing the battlefield and destroying the Turkish defences and depôts, our troops withdrew to Samarra. By these rapid and brilliant strokes General Maude completely upset the enemy's preparations on each of his three possible lines of attack, and so greatly reduced the prospects of success of any future enemy offensive. During the year 1917 we have captured 15,944 prisoners and 124 guns in this theatre.

The death of Sir Stanley Maude on November 18th has put an end to the career of a commander whose vigour and resource have achieved a series of victories without a single reverse, and whose exploits are likely to remain for long as a model of what can be done by a small force on interior lines when skilfully and energetically handled.

German East Africa.

12. In German East Africa our object throughout the past year has been to complete the conquest of the Colony by bringing the remaining enemy forces to battle. Operations conducted by

General Hoskins, and later by General Van Deventer, have resulted, despite a strenuous resistance and the very great difficulties confronting an invading force in a country that is covered with thick forest and virtually trackless, in wearing down the enemy forces and expelling them completely from German territory. The pace of the process of attrition increased very rapidly during November, 1917, when important losses were sustained by the Germans, who have lost virtually all their artillery and the great bulk of their European personnel. At the end of November the remnant of the enemy force retired into Portuguese East Africa, and the whole of the former German Colony is now in our hands. We are at present engaged in the pursuit of the German forces in Portuguese territory in conjunction with our Portuguese Allies.

Since January 1st, 1917, we had taken, down to November 30th, 1,667 Europeans and 5,061 Askaris as prisoners alone, together with 18 guns and 72 machine-guns.

It has throughout been our policy to substitute native African troops for both Indian and British units, in view of the obvious disadvantages of employing the latter in a tropical theatre. The utmost possible effect has been given to this policy, but practical limitations have been imposed by the difficulty of officering new native formations and providing white non-commissioned officers.

The great majority of the white troops, both Imperial and South African, have now been withdrawn, and only indispensable combatant units remain, together with the auxiliary formations which cannot be provided from native sources.

General Results.

13. The result of the year's operations has been that in the Western theatre the Allies have foiled the enemy's plan of avoiding battle; they have forced him to fight on parts of the front from which he could not retire without surrendering important strategical advantages; they have driven him from practically every important position he had in his possession between the sea and the Meuse, and this will not only be of the utmost value to us in any further advance but it will greatly reduce our losses in holding the line. This is especially the case at Ypres, where our progress has completely obliterated the salient which ever since 1914 has been a source of anxiety and has involved severe loss to its garrison. Sir Douglas Haig's methods of attack and our superiority in artillery and munitions have resulted in greatly increased losses to the enemy, while our own are much lighter as compared with the corresponding period of fighting in previous years. Except for one small enterprise on the coast and the reverse sustained by us at Cambrai, the enemy has gained no success against us, while we have repeatedly driven him from his strongest positions. During the year the British Army has recovered 670 square miles of territory, while the French and British Armies together have wrested from the enemy over 1,400 square miles.

In the Southern theatre the Italian Army is recovering from its recent reverse, and is making a successful stand on the Piave line.

On the Salonika front the effect of the Allied operations has been to bring Greece in on our side and to allow her to develop her military force, for our benefit, in full security. Further, by the throwing open of the routes through Greece our communications have been much improved; the risk of a long sea voyage has been avoided, and a very material saving in tonnage has resulted.

In the Near East, in the early part of the year, we not only removed all danger to Egypt, but, by threatening invasion of Palestine, kept large Turkish forces in Syria, and hampered and delayed the enemy's preparations for the recapture of Baghdad. Later on the successful execution of the threatened invasion, the rout of the Turkish armies opposing us, and the capture of Jerusalem have not only greatly lessened the danger of an offensive in Mesopotamia but compromised the whole Turkish position in Arabia and the Middle East.

In Mesopotamia we have routed and destroyed the greater part of the 6th Turkish Army, advanced a further 180 miles into enemy territory, and have captured one of the chief cities of the Turkish Empire. By this we have deprived the enemy of his base for operations in Lower Mesopotamia and in Southern Persia. In Persia enemy incursions have been repelled and the security of the Indian frontier has been maintained. These successes have been obtained although the Russians have been prevented from co-operating with us to any material extent, and though the part assigned to us in the original plan of operations for this year was subsidiary to theirs.

Finally, we have completed the conquest of the last remaining German colony; and during the year 1917 have taken on all fronts 115,000 prisoners and 781 guns.

Achievements of Dominion, Colonial and Indian Troops.

14. In the above sketch of military operations during the past year, it has not been possible to distinguish between the particular services rendered by the various nations and nationalities of the Empire. But it must not be forgotten that during the war the forces of the Crown have become welded into a true Imperial army, representative of every part of the world-wide British Commonwealth, and a brief note may be included as to the special services of the various overseas forces.

The share of the Australian, New Zealand, Canadian, South African and Newfoundland contingents in the successes of the 1917 campaign are well known. The capture of Vimy Ridge in April, the prolonged and bitter fighting around Lens during the whole summer and autumn, and the capture of Passchendaele were carried out by the Canadian Corps, which has thus proved

itself as excellent in offensive as its splendid defence of Ypres in 1915 had shown it to be in defensive fighting. The New Zealand and Australian contingents have corresponding achievements to their credit in their share of the battle of Messines and in the long sustained and bitterly contested fights in the Ypres salient from July to November. The South African brigade sustained the brilliant reputation which it won last year at Delville Wood by the devoted services it rendered on the battlefields of Arras and Ypres. Finally, the Newfoundland Regiment took a glorious and costly part in the same two battles. The troops of all the Dominions have shown themselves throughout the campaign of 1917 to have maintained the historic standards of the British Army and have been worthy rivals of the United Kingdom Troops in every military effort and achievement.

This testimony to the services rendered by the Dominions would not be complete without some reference to the part played by South Africa in German East Africa, where her troops have borne, under the brilliant leadership of General Van Deventer, a conspicuous share in a peculiarly arduous campaign.

The smaller Colonies and Protectorates have naturally been unable to play so great and conspicuous a part in the World War, but in their own spheres they have contributed their full share to the military effort of the Empire. Labour and fighting troops were freely drawn upon for the Mesopotamian and East African theatres. West Africa, British East Africa, Uganda, Nyasaland and Rhodesia have all sent contingents to fight in German East Africa. 16,000 men from the West Indies have been sent across the Atlantic; and labour corps from the Eastern Colonies have been sent to the Mesopotamian and East African fronts; and, despite unfavourable conditions, to the Western theatre. A large number of individuals from overseas possessions, such as the Malay States and Hong Kong, have also joined the Imperial forces.

Finally, India's contribution, both in man-power, material and money, has steadily increased throughout the year. India has taken a very important share in the victorious campaign in Mesopotamia. The great majority of the troops in this theatre of war are Indian. They have fully sustained the high reputation of the Indian Army for gallantry and endurance. India has been responsible for much of the supply, medical and transportation system by water and on land. Indian forces have also rendered conspicuous service in France, Egypt and East Africa. The question of the supply of officers, especially medical officers, has been solved; commissions have been granted to Indians, and a voluntary Indian Defence Force is now being organised and trained. Special mention should be made of the loyal and effective assistance of the Indian ruling princes and chiefs, from the smallest to the greatest. Trouble on the north-west frontier with Mahsuds and Mohmands has been successfully confined within narrow limits and has now been satisfactorily suppressed.

Strength of the Army, &c.

15. The effort which the British nations have made under the one item of "Provision of Men for the Armed Forces of the Crown" amounts to not less than 7,500,000 men, and of these 60·4 per cent. have been contributed by England, 8·3 per cent. by Scotland, 3·7 per cent. by Wales, 2·3 per cent. by Ireland, 12 per cent. by the Dominions and the Colonies, while the remainder, 13·3 per cent., composed of native fighting troops, labour corps, carriers, &c., represent the splendid contribution made by India and our various African and other Dependencies.

These figures cover the whole period of the war. But the past year alone has seen a considerable increase in the strength of the Army, the total forces, excluding Volunteers at home and native labour units in the field, showing a rise of 16 per cent. It is satisfactory to observe that, while it has been found possible to decrease the number of troops in Great Britain, the Expeditionary Forces have been increased by no less than one-third of their total strength. This increase has benefited our armies in France, in Egypt, and in Mesopotamia, while the forces in Macedonia and East Africa have been slightly diminished.

As regards casualties, it is plainly impossible to give details of our losses without assisting the enemy's calculations as to the amount of our remaining man-power.

16. *Royal Flying Corps*.—To take some special services by themselves, the Royal Flying Corps has shown a very remarkable development. The number of units, for instance, formed in the past year was as large as the total number of units which had been formed previously in the whole 2½ years of war. In the matter of personnel, the number of both officers and other ranks has doubled, the latter being largely drawn from unskilled and partially skilled workers in various metal and engineering trades. The increase in the supply of future flying officers is especially striking. The monthly influx of cadets for training at Cadet Training Wings has increased tenfold, and boys too young for these are admitted to a preparatory training school. Altogether the number of officers passing through the training squadrons as graduated pilots is more than 200 per cent. greater than it was in January, 1917. This growth in number has been achieved in spite of the fact that the length of time occupied in training has increased. The technical and equipment sides of the Corps have shown a similar development, the supply of aeroplanes having been doubled during the first nine months of this year. The importance of the work done by the Flying Corps in the field, as the eyes of our Army, can be only faintly imagined from the official communiqués. These, however, show that in France, during the period mentioned, 876 enemy machines were brought crashing to the ground, and 759 others driven down out of control by our airmen, apart from invaluable services rendered in bombing the enemy's bases, locating his batteries, and taking photographs of his lines.

17. *Royal Artillery*.—The personnel of the Royal Artillery increased 17·6 per cent. between August, 1916, and August, 1917.

In the first nine months of 1917 the supply of modern anti-aircraft guns in the field increased 44 per cent., that of field guns 17 per cent., of field-howitzers 26 per cent., of heavy guns 40 per cent., of medium howitzers 104 per cent., of heavy howitzers 16 per cent., and of heavy-guns on railway mountings 100 per cent.; these last have an increased range of about 35 per cent. A new trench mortar has been introduced with three times the range of its predecessor. We have also supplied large numbers of heavy guns and trench mortars to our Allies in different theatres of war. Moreover the efficiency of our artillery, particularly against the enemy's personnel, has been materially improved by the introduction of a new fuze which acts instantaneously on percussion, and consequently has a very powerful effect above ground.

18. *R.A.M.C.*—The Medical Service has continued to expand with the growth of the Army and its strength is now largely in excess of our whole original Expeditionary Force. A large proportion of the civil medical profession has been mobilised and is now serving with the armies in the field. More than 17,000 women are employed as nurses, and over 28,000 others are engaged in military hospitals on various forms of work. A distinguished committee of Consultant Physicians and Surgeons has been constituted as an advisory body, and valuable research work has been carried out, notably on the question of protection against gas. Hospitals in the United Kingdom now number more than 2,000, including several special orthopædic hospitals. The health of the troops in the United Kingdom is actually better than the peace rate; the same is the case in France, excluding admissions to hospital by reason of wounds.

Transport.

19. Since the general control of transportation was entrusted in the summer of 1916 to a Director-General of Movements and Railways, a vast increase has taken place in transport facilities in all British theatres of war.

In all these theatres railways have come to play a more and more important part. In France a vast light railway system has been created, involving the supply during the present year of approximately 1,700 miles of track and the whole of the equipment. When it is remembered that light railways were little used in this country before the war, and that material for them was mostly imported from countries in the occupation of the enemy, it will be realised that the provision of this mass of material in so short a time has been a difficult matter. Exclusive of these light railway systems, the total amount of permanent railway track supplied complete to all theatres of war is about 3,600 miles. In Egypt the railway crossing the desert from the Suez Canal has now reached and passed Gaza. In Mesopotamia the rapid and successful movements of our troops have only been made possible by the construction of a whole series of lines since the beginning of 1917. The development of road-building has

been on a similar scale, and the shipments of material, equipment and stores for these two purposes during the last nine months have averaged 200,000 tons a month. Much labour has also been spent in the organisation of an Overland Line of Communication through France and Italy to the Mediterranean in order to save shipping. This line was opened for personnel traffic in June, 1917, and for goods traffic early in August.

The Director-General of Movements and Railways has under his control not only Inland Water Transport arrangements, but the supply of men and material for the equipment and working of docks overseas. In France the conveyance of supplies of all kinds to our armies along the French rivers and canals is performed by a large fleet of tugs, barges, and self-propelled barges. The fleet thus employed in France consists of over 700 vessels, and the tonnage carried by it averages over 50,000 tons per week. In Mesopotamia shipyards, warehouses, wharves and equipment have been erected at Basra and at various points on the Tigris, which has been subjected to a complete system of pilotage, dredging, and charting. On March 20th, 1917, riverhead was established at Baghdad. In July, 1916, the number of vessels in commission was about 130, in addition to a varying flotilla of launches; the number is now 1,245, including launches, and further vessels are under construction. The daily tonnage carried up the Tigris has risen in the same period from 220 tons to 3,700.

Mechanical transport has continued to progress and maintain a high level of efficiency, in spite of the competing claims of tanks and aero-engines. As regards personnel, schools for training drivers have been opened at home and in various theatres of war, and to some extent men have been replaced by women.

Anti-Aircraft Defences.

The heavy losses inflicted upon enemy airships in 1916 brought about a temporary lull in Zeppelin raids on this country in the first few months of 1917. On the 25th May, however, the enemy had recourse to a far more effective, though not unforeseen, form of aerial attack. On that date 18 Gotha biplanes crossed the Essex coast in full daylight, and being baulked by cloud in their attempt to reach London, circled southward across the Thames and bombed Folkestone and the neighbouring camps. Between May 25th and 22nd August the enemy made eight daylight raids on this country, two of which were on London. Meanwhile our defences were being rapidly improved, the number of guns was increased and homogeneous fighting squadrons organised; consequently, the enemy abandoned attempts on London and confined himself to tip and run raids on coast towns. On 22nd August two Gotha planes were shot down near Margate and a third off Dover, while two more machines were destroyed on their way back to Belgium, after which daylight raids were abandoned. Thus, in four months our aerial defences, for the time being at any rate, mastered this new

form of attack. The enemy's losses during the period of the daylight raids may be summarised as follows:—

Certain.	Almost certain.	Doubtful.
9	9	2

This does not include machines which are known to have crashed in Belgium.

On 2nd September this same squadron of Gotha aeroplanes carried out an attack on Dover by moonlight; this was followed on the succeeding night by an attack on Chatham and Sheerness by about eight machines. On the night of the 4th–5th September 24 aeroplanes crossed the coast, and about one-third of that number attacked London. Between 2nd September, 1917, and the present time (8th February, 1918) there have been 17 moonlight aeroplane raids on England, most of which have been directed against the capital.

The difficulties of defence against aeroplane attack by night are far greater than in the case of daylight raids, when the heavy bombing squadrons are at the mercy of fast scouts; even in the brightest moonlight it is almost impossible from the ground to see aeroplanes flying at 10,000–15,000 feet. These difficulties, however, are gradually being overcome.

As a proof of the more effectual measures for defence which have been adopted, it may be stated that in four successive raids, out of a total of 66 machines which attempted to bomb London, 48 were turned back by gunfire and only 18 reached their objective. Up to 1st November, eight enemy machines were almost certainly destroyed in the course of these raids, and one landed in Holland; while, in December and January, five more machines were brought down. We may put the enemy's certain losses during the night raids at 14 machines, and this takes no count of all those raiders which, having been damaged over this country, fall in the North Sea on their homeward flight.

Meanwhile, the enemy has not abandoned airship raids. Finding that his existing Zeppelins were at the mercy of our defences, he set about constructing a new type which could navigate at altitudes of 18,000 feet and over. On 19th October, 1917, 12 of these new Zeppelins made an attack on this country, all flying at an altitude of 16,000–20,000 feet, where they encountered a strong north-east current of 40–50 miles per hour, with a result that seven out of the 12 raiders were driven helplessly across England, the Channel, and the whole length of France. Three of these airships only are believed to have reached Germany, one being shot down and three compelled to land in France. This disaster was the direct result of our improved air defences, because the enemy airship commanders did not dare to descend to lower and calmer regions where they would meet certain destruction by gun-fire or aeroplane.

Air Raid Precautions.—Since the initiation of aeroplane raids on London, arrangements have been made by the Home Office

for giving public warning by sound signals by day and up to midnight, and by circulation of "Take Cover" notices by police and special constables during both day and night. The provision of air raid shelters has been organised by the Commissioner of Police, and powers have been taken under the Defence of the Realm Regulations to require occupiers of suitable buildings to make their premises available as air raid shelters. Suitable buildings have been surveyed by the police in all districts and lists compiled, and the provision of additional accommodation where necessary has been taken in hand by the Commissioner with the assistance of a Committee of experts.

With a view to making the most effective use of the resources of the fire brigades in the London area for dealing with outbreaks of fire caused by air raids, a complete scheme of co-ordination, drawn up by a Committee of Fire Brigade Representatives, has been put in force with the co-operation of the local authorities, the local fire brigades acting, on the occasion of air raids, under the directions of the Chief Officer of the London Fire Brigade. Legal effect has been given to this scheme by an order of the Secretary of State under the Defence of the Realm Regulations.

A leaflet setting out in consolidated form the precautions to take in case of air raids has been drawn up and many thousands issued to local authorities and to the public. The Home Office maintains close touch with the military authorities on the one hand and with the chief officers of police and other civil authorities in all parts of the country, and constantly initiates or advises on innumerable local developments arising out of aircraft attacks on this country.

The lighting restrictions which have been shown to be very effective in minimising loss of life and damage to property due to air raids have necessarily been retained, but it has been found possible to introduce several modifications which have considerably lessened the inconvenience which they occasion to the public.

CHAPTER VII.

THE AIR SERVICE.

The year 1917 saw the passing of the Air Force (Constitution) Act, 1917, and that Act and the amalgamation of the Royal Flying Corps and the Royal Naval Air Service in a unified Air Force which will eventually result from it represents the consummation of tendencies, the workings of which can be traced throughout the brief but crowded history of naval and military aeronautics in this country. A recapitulation of that history is necessary for an understanding of the situation which led to the enactment of this measure with the consequences which will ensue from it.

The Royal Flying Corps came into existence in May, 1912. In its original organisation it was intended to be a joint service divided into naval and military wings, which would be administered by the Admiralty and War Office respectively. With a view to ensuring co-operation between the two branches, a Joint Air Committee was formed of naval and military representatives under the chairmanship of Colonel (now Brigadier-General) Seely, the then Under-Secretary of State for War. Apart, however, from the Central Flying School there was no establishment common to the use of the two wings, and, at the outset, the forces working in the direction of dualism proved stronger than any unifying influence which the Joint Air Committee was able to exert. It must be remembered that aeronautics were, at the time, in a comparatively primitive state of development, and the average type of aeroplane in use even at the beginning of the war bore a relation to the types now in use which may be expressed by a comparison of George Stephenson's "Rocket" engine with a modern express locomotive.

Under these conditions the possibilities of the use of aircraft as an independent arm in warlike operations were on a basis far removed from our conceptions of to-day, and it was natural that stress should be laid on the fact that air operations as then practicable were strictly ancillary to naval and military operations. The two branches of the air service thus tended to reflect the essential differences in organisation and outlook which must exist between services so different in functions and methods as the Navy and Army.

With the outbreak of war certain disadvantages in the separation of the naval and military branches of the air service were not slow to reveal themselves. The necessity for the rapid expansion of both branches was apparent from the days of the earliest hostilities, and competition between the services ensued to some extent in personnel, but chiefly for supply of material. It must not be supposed that the spirit of accommodation between the two services was absent, but it was natural for the two supply branches each to do their best for the service to which they

respectively owed allegiance. In these circumstances, the absence of any independent and competent method of allocation between the two services of our own aeronautical resources and of such material as could be obtained from our Allies produced inconveniences which the ever-growing needs of both the naval and military branches tended to aggravate.

In the hope of finding a solution of these difficulties, a new Air Committee was appointed by the Cabinet in February, 1916, under the chairmanship of Lord Derby. The old Air Committee, although never abolished, was dormant, and had, in fact, held no meetings since the outbreak of war. The object of the new Committee was to prevent competition between the services and to increase the output of machines by co-ordination of design and of the placing of orders. The Committee, however, though it accomplished useful work and served to focus the problems at issue, suffered from many of the defects of the original Air Committee. It had no independent advisers; it could suggest and recommend, but if its recommendations fell on unwilling ears it had no powers of enforcing them. The existence of the Committee terminated after two months with the resignations of Lord Derby and Lord Montagu.

Air Board.

The Derby Committee was followed by a decidedly more definite step in the direction of co-ordination with the appointment of the first Air Board in May, 1916, under the Presidency of Lord Curzon. On this Board the Army Council and the Board of Admiralty were directly represented in the persons of Sir David Henderson (then Director-General of Military Aeronautics) and Rear-Admiral (now Sir) F. C. Tudor, then Third Sea Lord. The Air Board differed from the preceding Committees in intention, composition and duties, which were intended to be considerably wider in scope than those of a mere mediator between the two services in matters of supply. The Board was empowered to discuss matters of policy in relation to the air, to make recommendations to the Admiralty and War Office, and, in the event of those Departments declining to act on its recommendations, to refer the matter to the War Committee. It was further announced in the House of Lords by Lord Curzon that the Board would review among other questions the possibility (which had been mooted at the time of the appointment of the Derby Committee) of the amalgamation of the supply and design branches of the two services as well as "in the further background the desirability or possibility at a future date of creating a single Department under a single Minister." The first Air Board thus possessed a far wider ambit of suggestion than either of the two earlier Committees, and it enjoyed the superior prestige attaching to it from the Presidency of a Cabinet Minister who was also a member of the War Committee. No executive functions were, however, attributed to the Board.

The next stage is reached with the formation of the second Air Board under the New Ministries and Secretaries Act, 1916,

following upon a report by Lord Curzon to the War Committee, in which a considerable extension of the powers of the Board was recommended.

Lord Curzon had retired from the Presidency upon his becoming a member of the War Cabinet under the Premiership of Mr. Lloyd George, and he was succeeded in January, 1917, by Lord Cowdray. A month later the Air Board was able to submit for the approval of the War Cabinet a draft of the Charter defining its functions and duties which the Board, after discussion, had settled with the Admiralty and War Office. The Director of Naval Air Services was given a seat on the Board of Admiralty as Fifth Sea Lord, and the supply of all heavier-than-air craft, together with their engines and accessories for both services, was transferred to the Ministry of Munitions, the Air Board becoming responsible for design and for the allocation of the aircraft between the two services in accordance with the aerial policies determined by the services in concert with the Air Board. Two members of the Ministry of Munitions, the Controller of Aeronautical Supplies and the Controller of Petrol Engines, were added to the Board. In February, the Departments of the Controller of Aeronautical Supplies, of the Director-General of Military Aeronautics, and of the Director of Naval Air Services were transferred to the Air Board Office. The various authorities concerned with aviation were thus for the first time housed under one roof. Such an arrangement (though subsequent developments have led to the occupation of other adjacent buildings) was clearly of a nature to facilitate the amalgamation not only of the departments of design and supply but also of the combatant services themselves if events proved such a measure to be desirable.

It is now necessary to discuss the factors which led to the transformation of the second Air Board into the fully equipped and independent Ministry which is, at the date of the Report, in course of organisation. At the time of the formation of the second Air Board, the requirements of the two services in the matter of aircraft were far from satisfied, and during the first six months of its existence the whole of its energies were devoted to increasing supply in order to meet those requirements. By the middle of the summer of 1917 the situation had improved so much that the Board was in a position not only to look forward to the day when the needs of the two services would have been met but also to anticipate the creation of a substantial surplus of aircraft beyond those needs. It then became necessary to take measures for the utilisation in the most effective manner of these additional aircraft. This gave rise to questions of policy which the Board, constituted as it was, was unable to solve. An Air War Staff became a necessity in order to consider problems of aerial offensive and defensive distinct from those connected with the operations of the army and the navy. The need for such a body was pointed to by the obviously increasing importance of these problems. The speed, range and carrying capacity of aircraft were reaching a stage of development almost unsuspected at the

beginning of the war. It was possible to envisage from the results of bombing operations already practised on lines of communication and other places behind the enemy's lines the effect which the extension of these operations might have upon the determination of a struggle which, as regards the conflicts of the opposing armies on the western front threatened to reach, if not a deadlock, at all events a condition where victory might only ensue by a long and costly process of attrition.

From the point of view of defence, the new arm presented problems pregnant with at least equal importance. The proud and ancient inviolability of these islands was being challenged in a new and startling fashion, and the seriousness of the problem was added to by the fact that the geographical position of the capital of the Empire rendered it particularly inviting to attack from the air. The menace of the lighter-than-air craft seemed in a fair way to be overcome, but it was clear that the possibilities of attack by bomb-carrying aeroplanes were not yet either measured or mastered, and any arguments based on the assumption that the uses of aircraft were purely ancillary to military or naval operations were being refuted by the logic of fact and experience. The Air Board, however, possessed neither the staff nor organisation to enable it to cope with these problems. The President was without that body of technical advice which alone would enable him to form a correct judgment as to the relative importance of the different methods of employing aircraft. For technical advice of this kind he could look only to the naval and military members of the Board who sat there mainly as representatives of the Board of Admiralty and of the Army Council.

These considerations led to Lord Cowdray's addressing, on July 28th, 1917, to General Smuts (as the member of the War Cabinet charged with the general supervision of air matters) a letter setting forth his view that the Air Board should be turned into a permanent Ministry, that it should have a War Staff to consider the best use to be made of aircraft not needed directly by the operations of the army and the navy, and that the surplus aircraft should be considered a distinct unit from the air contingent attached to the Expeditionary Force.

On August 24th the War Cabinet decided to accept in principle the establishment of an Air Ministry, and also decided that a further Committee should meet at once to work out a scheme for giving effect to this decision. This body consisted, under the chairmanship of General Smuts, of representatives of the Admiralty, War Office, Treasury and Air Board, and was known as the Air Organisation Committee. Its appointment was a necessary administrative corollary to the decision taken by the War Cabinet on the question of principle. The absorption of the two branches of the air service in a single service would at any time have been a matter of complexity, and the task was one of which the delicacy was enhanced by the fact that it was to be brought about in the middle of a great war and at a time when those concerned in the amalgamation were carrying a burden of responsibility and administrative work, the daily performance of

which could suffer no interruption or delay. It was essential, therefore before any legislative action was initiated that the ground to be covered should be carefully plotted out, and this was the task which fell to the Air Organisation Committee.

The nature of its inquiries may be indicated under the following statement of some of the questions which were dealt with :— (1) the legislation needed for the establishment of an Air Force and of an Air Council to administer it ; (2) the constitution of the Council, its membership and the appointment of duties between the members ; (3) the organisation of the Air Ministry and the duties of its officials ; (4) the question of supply in all branches, the rates of pay, conditions of service and pension allowances, the relation between the Air Ministry and Air Force and the War Office and Admiralty and Army and Navy ; (5) the preparation of King's Regulations and other matters relating to discipline etc. On the majority of these questions the Air Organisation Committee was able to arrive at an agreement with the departments concerned.

It is, however, only right (if a just perspective is to be maintained) to emphasise the importance of the contribution to the unification of the two services which had been made when their headquarters' staffs became housed under one roof. The opportunities for daily conference on almost every subject of aeronautical administration which naturally ensued—together with the link provided by a joint system of supply and design—was probably an essential preliminary to the task of unification.

Ministry of Air.

Following upon the discussions of the Air Organisation Committee, the Air Force Bill was introduced into the House of Commons in November. It met with no opposition of principle in either House and received the Royal Assent on November 29th. The scheme of the Act contemplates that the whole of the personnel and equipment of the R.F.C. and R.N.A.S. should be in due course absorbed by the Air Force under the control of an Air Council presided over by a Secretary of State and exercising functions analogous to those of the Army Council.

It was fortunately not necessary to provide the new force with a complete and original code of administration co-extensive with the codes by which the Navy and Army are governed and which are made up of an accretion of centuries of experience. The actual administration of the Air Force would clearly offer many analogies to that of the Army, and it was found practicable to adopt with modifications the Army (Discipline) Act to regulate the discipline of the Air Force. Similarly, the Crown is empowered by Section 13 of the Air Force (Constitution) Act to apply with any necessary modifications to the Air Force any of the various enactments relating to the powers, rights and duties of the Army or of its officers and men.

It was not to be expected that the new department could spring forth fully armed from the decisions of the Legislature. The provisions of the Air Force (Constitution) Act represented the fruits of a careful preliminary exploration by the Air Organisation Committee, but there remained important steps in the detailed organisation of the new Force which could not be undertaken until the Bill became law. One of the first steps in reorganisation was a readjustment of the positions of the Technical Department of the Air Board, which was responsible for the design of aircraft, and the Aeronautical Supply Department, under the Ministry of Munitions, which was under the charge of Sir William Weir, who was also a member of the Air Board. The changes now made unified the functions of the two Departments. The next step was to set up the Air Council and to define the duties of its members. This was done by Orders in Council issued on December 21st, 1917, and January 2nd, 1918. On the latter date Lord Rothermere (who had been appointed President of the Air Board on November 23rd, following Lord Cowdray's resignation) was appointed Secretary of State. The appointments of the other members of the Air Council were announced at the same time:—Lieutenant-General Sir David Henderson, K.C.B. (additional member and Vice-President); Major-General Sir Hugh Trenchard, K.C.B. (Chief of the Air Staff); Rear-Admiral Mark Kerr, C.B. (Deputy-Chief of the Air Staff); Commodore Godfrey Paine, C.B. (Master-General of Personnel); Major-General W. S. Brancker (Comptroller-General of Equipment); Sir William Weir (Director-General of Aircraft Production in the Ministry of Munitions); Sir John Hunter, K.B.E. (Administrator of Works and Buildings); Major J. L. Baird, C.M.G., D.S.O., M.P. (Parliamentary Under-Secretary of State). The Air Council is now engaged, in consultation with the Admiralty and the War Office and other Departments concerned, in completing arrangements preparatory to the assumption of full administrative and executive responsibilities.

It is convenient here to refer to two matters in which some misunderstanding may have existed as to the seat of responsibility:—

- (1) Home defence against air raids.
- (2) The control of lighter-than-air craft.

(1) The former is under the control of the Field-Marshal Commanding the Home Forces, and the Air Council is not responsible for it. Aircraft, anti-aircraft guns and searchlights for the defence of London have been united under the immediate command of a single General Officer. Elsewhere in the United Kingdom the guns and lights are under the local General Officer Commanding-in-Chief, while the aircraft has been grouped under the General Officer Commanding a Brigade. Section 3 of the Air Force Constitution Act, however, provides that units of the naval or military forces engaged in defence against aircraft may, by arrangement with the Admiralty or Army Council, be attached to the Air Force.

The foregoing refers mainly to aeroplanes and seaplanes, the airship, and to a lesser extent, the kite balloon, having been administered on somewhat different lines.

(2) Up to the end of December, 1912, the Army and the Navy had both been experimenting with airships, but at that date the Army Council decided to relinquish this work, and, consequently, the military airships and personnel were transferred to the Admiralty on the 1st January, 1913, and henceforth airships were experimented with and administered solely by the Admiralty.

At the outbreak of war there were only five small airships in existence, and little progress was made until March, 1915, when the first S.S. (Submarine Scout) type airship was produced and a programme embarked upon. Since that date considerable development has taken place and non-rigid airships form an important part of the anti-submarine measures, while rigid airships are being constructed by the Admiralty with a much wider range of action than is possible for the smaller non-rigid air craft.

On the formation of the Air Force, though the principle was agreed that ultimately airships should be transferred to the new authority, it was decided that until this branch of the service had become settled on a more solid foundation the responsibility for the design, production and administration should remain with the Admiralty. The personnel will be transferred to the Air Force while remaining with the Admiralty for production and administrative purposes.

The kite balloon was originally taken up by the Navy in March, 1915, and their example was followed by the Army, whose first three land sections in France were manned by naval personnel. It was later arranged that the second Air Board should be responsible for the whole of the supply of R.F.C. requirements, though the Admiralty remained responsible for the provision of a considerable portion of the demands for naval kite balloons. On the formation of the Air Force the whole responsibility for kite balloons will pass to the new body.

Reference should be made to some of the organisations subsidiary to the central authority whose evolution has been traced in the preceding paragraphs.

Inventions.—The administrative separation of the two branches of the service reflected itself in the arrangements for dealing with aeronautical inventions, the consideration of which was divided between the Board of Invention and Research under the Admiralty, the Munitions Inventions Department under the Ministry of Munitions, and the Directorate of Military Aeronautics under the War Office. This division of responsibility possessed obvious disadvantages in a matter where the co-ordination of all sources of knowledge and experiment was of prime importance, and one of the duties with which the first Air Board was charged was the organisation of a system of further interchange of ideas on air problems between the two services. Proposals to this end were put forward by Lord Curzon without

securing acceptance from some of the parties whose concurrence was essential, and a settlement of the problem was not reached until the middle of 1917, when an Air Inventions Committee was appointed by Lord Cowdray, to which was transferred all duties in connection with the examination of inventions relating to heavier-than-air craft. This Committee works in close co-operation with the Advisory Committee on Aeronautics.

Civil Aviation.—A Committee known as the Civil Aerial Transport Committee was appointed in April, 1917, under the chairmanship of Lord Northcliffe to consider :—

- (1) “ The steps which should be taken with a view to the development and regulation, after the war, of aviation for civil and commercial purposes, from a domestic, an Imperial, and an international standpoint.
- (2) “ The extent to which it will be possible to utilise for the above purposes the trained personnel and the aircraft which the conclusion of peace may leave surplus to the requirements of the naval and military air services of the United Kingdom and Overseas Dominions.”

The Committee at the outset divided its enquiry into five branches and entrusted each to a special committee, as follows :—

- (1) Questions of law and policy.
- (2) Technical questions as to the performance of aircraft and the requirements of aerial services.
- (3) Business questions relating to the position of the aircraft manufacturing industry after the war.
- (4) Labour questions.
- (5) Problems of research and education.

Reports by all the five Sub-Committees have been drawn up and are now under consideration by the Main Committee.

Medical Research.—A Medical Research Committee appointed in March, 1917, has performed valuable services to the investigation of the various physiological phenomena produced by flying at high altitudes and kindred subjects. It has been found by experience that flying men are subject to many peculiar disabilities, and considerable progress has been made in the methods of prevention and cure of these disabilities.

Supply of Aircraft.

The above recital indicates generally what steps have been taken in matters of administration and control. It should be supplemented by some general account of the measures taken as regards supply of aircraft and the development of that supply.

In endeavouring to describe the measures taken to meet the aircraft needs of the Navy and Army, the writer is at once confronted by the fact that the information desired by the country is precisely the information desired by the enemy. What the

country wants to know is what has been the expansion in our Air Services; whether we have met and are meeting all the demands of the Navy and of the Army, both for replacement of obsolete machines by the most modern types and for the increase of our fighting strength in the air; what proportion of the national resources in men, material and factories is being devoted to aviation; what the expansion is likely to be in the future. These are precisely the facts which we should like to know with regard to the German air service, and for that reason it would be inadmissible for us to supply Germany with corresponding information about ourselves by publishing a statement on the subject.

It can be said that the expansion of our Air Services is keeping pace generally with the growing needs of the Navy and the Army.

The brilliant part played by the Royal Flying Corps and the Royal Naval Air Service in the battles of the Somme, Vimy, Messines and Ypres has been described by the Commander-in-Chief, who has also borne frequent testimony to the inestimable value of the work performed daily and nightly by the two air services. It is fair to say that not even the well-known superiority of our airmen over those of the enemy would have enabled them to have earned the Commander-in-Chief's praise in so unstinted a measure unless they had been supplied with satisfactory machines and equipment from home. It is rather the fashion to criticise the quality of our machines. Most of the critics, however, are ignorant of the technical and manufacturing difficulties which have to be overcome in order to keep up a constant and increasing supply of the most up-to-date machines. Not only are the technical difficulties and the resultant research and experimental work formidable in themselves, but the task of building up in war time, without seriously affecting the requirements of other services, a new industry of a most highly skilled character necessarily puts a heavy strain upon the organising and manufacturing ability of the country. The growing realisation of the increasing importance of aviation as an artificer of victory has recently been reflected by the concession of first priority to labour and materials required for aircraft production.

The nature of the duties performed by the Royal Naval Air Service, both in conjunction with the fleet and from naval bases, makes secrecy essential to success. It is, unfortunately, inevitable, therefore, that the public should remain in the dark on this subject; but the Germans, who in this matter are perhaps the best judges, have good reason to know and to regret the great and growing activities of the Royal Naval Air Service. All that has been said regarding the difficulties of supplying the requirements of the Air Forces operating over the land applies equally to the supply of those which operate over the sea. In both cases difficulties are being overcome and the outlook is improving.

The science of aeronautics is in a state of constant and rapid development; improvements in engines, aeroplanes and their numerous accessories are constantly being worked out. But the interval between the discovery of an improvement and its intro-

duction into the service is, owing to technical considerations, very much longer than is commonly supposed. Experience shows that, as a rule, from the date of the conception and design of an aero-engine to the delivery of the first engine in series by the manufacturer, more than a year elapses; the corresponding period for an aeroplane is about one half as long. Consequently, plans have to be laid for a long period ahead, and these plans are liable to be upset by many uncertain factors. The hopes based upon the promising results given by the first experimental engines of a new design are frequently disappointed owing to difficulties of bulk manufacture or to defects only developed after long trial in the air; new types of aeroplanes favourably reported on when first tried are found on longer experience not to give complete satisfaction, and yet it is impossible, if we are to keep ahead in the keen struggle for aerial superiority, to wait for full experience before placing orders. Risks must be run, and new types must be adopted at the earliest moment consistent with reasonable assurance that they will constitute a substantial improvement on what is already in use. Orders must be placed, moreover, for considerable numbers and for delivery over many months, as the large output required for our present flying services can only be obtained by bulk orders permitting a high degree of sub-division of work.

The next step in the problem is the balancing of the engine and the aeroplane programmes. Owing to the much longer period required for the production of engines than of aeroplanes, orders for the former must be placed for relatively long periods ahead, before it is known what types of aeroplanes will be required when the engines become available.

The problem is complicated by the fact that manufacture and delivery rarely if ever proceed in accordance with anticipation. The output of a particular type may be delayed for weeks or even months owing to some technical difficulty of manufacture. Moreover, as replacement of losses and expansion are proceeding simultaneously in the flying services, and the rate of wastage in different types of engines and of aeroplanes varies considerably according to circumstances, it is impossible to forecast with accuracy what engines will be available for the equipment of new types of aeroplanes after wastage has been made good. Nor is it possible to any great extent to adjust the programme by modifying orders once placed without disorganising supply. The problem does not end here. Whenever a new type is introduced provision must be made for accumulating a sufficient "head" of spare engines, spare aeroplanes and spare parts of innumerable kinds, to keep the squadron to be equipped with that type in a condition to make good the day-to-day wastage and carry out the constant repairs required.

Such being the nature of the problem, it is satisfactory to be able to record that during the year 1917 not only was the number of squadrons of aircraft on the various fronts increased in a notable degree, but there was a complete replacement of machines and engines of the older types. The very great increase

in output which is being obtained has placed a considerable strain on the workers in the aircraft and aero-engine factories of the country, a strain which is being met on the whole in a satisfactory manner.

The difficulties in connection with production are aggravated by the competing claims of many different types of aero-engines. Standardisation is the ideal but it is obviously difficult of attainment having in view the importance of not losing time in production and at the same time of keeping abreast with the very latest developments necessitated by the need for constant increase of horse-power and higher performance. The Air Council are most keenly impressed by the need for concentration on a few approved engines, and they have the whole question of the reduction of numbers of types under constant and careful consideration.

Attention was drawn, on more than one occasion, by manufacturers to the importance of maintaining the interest of workers in aircraft factories in the highly important but generally monotonous work on which they are employed. Engaged, as they frequently are, on the production by a repetition process of some small part of an aeroplane, these men and women find it difficult to realise that they are contributing effectively to one of our most valuable instruments of warfare. It was accordingly arranged that Captain Ewart, R.F.A., well known as a writer by the name of "Boyd Cable," should visit various squadrons at the front and gather materials and photographs for lectures concerning the exploits performed with various types of aircraft for delivery to the workpeople engaged on the manufacture of those particular types. Captain Ewart delivered several series of lectures which, judging from the reports received from the factories concerned, proved a very great success.

CHAPTER VIII.

THE MINISTRY OF MUNITIONS IN 1917.

By the end of 1916 the main manufacturing programme of the Ministry of Munitions, including the establishment of the National Factories, had already reached fruition, and—as had been demonstrated from the beginning of the Battle of the Somme in July—the new organisation was capable of producing a huge volume of supplies. During the year 1917 this manufacturing capacity still further matured, and the volume of output has been maintained and extended. Moreover, the administrative experience of two years has established a definite method and procedure which renders possible an ever-increasing accuracy of adjustment and forecast. It would be hard to over-emphasise the importance to the Army and its leaders of this growing confidence in the undertakings of the Ministry of Munitions.

As the demand has increased, so the ambit of the control exercised by the Ministry has widened. Fresh trades, processes, stages of manufactures and sources of supply, have been brought within its sphere, and what was at first almost exclusively a manufacturing problem becomes more and more—as the limit of expansion is approached—a problem of securing raw materials, transport and man-power.

In Mr. Churchill's words :—

“ The conditions under which the Ministry of Munitions was created were those of intense war emergency. The vital need for supplying the armies in the field with adequate, abundant and finally overwhelming supplies of ammunition, guns, and war material of all kinds necessitated and justified every expedient and the suspension of all ordinary rules. The immense and then unmeasured resources of the United Kingdom afforded an ample field for the enterprise and energy of departmental direction and for the organising capacity and bold initiative of British business men. Supplies were freely drawn from all parts of the Empire, and purchases from neutral States were used to supplement any deficiencies. As new needs arose they were met. Department was added to Department. Military requirements were not only satisfied, but anticipated. Vast programmes were successfully carried through. The British Armies became the best equipped and most formidably armed in Europe. This process still continues and will become increasingly pronounced.

“ But after these great efforts, and in the fourth year of the war, we are no longer tapping the stored-up resources of

national industry or mobilising them and applying them for the first time of war. The magnitude of the effort and of the achievement approximates continually to the limits of possibility. Already in many directions the frontiers are in sight. It is, therefore, not necessary simply to expand, but to go back over ground already covered, and by more economical processes, by closer organisation, and by thrifty and harmonious methods to glean and gather a further reinforcement of war power."

I. Administration.

The Act establishing the Ministry of Munitions was passed on June 9th, 1915, and special powers were conferred upon the Minister of Munitions by an Order in Council dated 16th June, 1915, the Munitions of War Act, 1915, and subsequent Acts and the Defence of the Realm Acts. Mr. Lloyd George took up his work as Minister of Munitions on May 26th, 1915, the nucleus of the new Department being formed by the Staff of the Cabinet Committee on Munitions, together with that of the special organisation established at the War Office under Lord Kitchener for the development of munition supply, known as the Armaments Output Committee.

To these were rapidly added certain older sections of the War Office organisation, such as the branch dealing with contracts for warlike stores and Lord Moulton's Committee for the production of high explosives. This process of transfer from the War Office was carried further in latter months, and by the end of 1915 the scope of the Department covered the supply of Arms, Ammunition, Explosives, Optical Munitions, Materials, Trench Warfare Supplies, Munitions Contracts, Munitions Finance, Inspection, Invention, Design and the Administration of the Royal Ordnance Factories, these functions being in the main duties which had formerly been exercised by the War Office.

During 1916 the Ministry of Munitions was entrusted with further responsibility for the storage of Gun Ammunition, Supply of Tanks, Supply of Tractors for Heavy Howitzers, Supply of Railway Materials for the Army, Supply of Mechanical Transport Vehicles, and the Supply of Chemical Glass and Laboratory Ware.

Since December, 1916, these functions have been further extended to include the highly important department in charge of the supply of heavier-than-air Aircraft for both Land and Naval services, as well as the development of Agricultural Machinery Supply on behalf of the Board of Agriculture. Since June, 1917, the Ministry of Munitions has also been responsible for the Supply of Fuel Oils.

The most important recent administrative development has been the establishment by Mr. Churchill of a Munitions Council, consisting of the Minister, the Parliamentary and Permanent Secretaries and Members. Each of the latter represents a group of separate Departments for the general superintendence and administration of which he is responsible. The Council as a

whole acts as a General Staff on munition matters. It deals with important questions of policy and such other matters as may be referred to it by the Minister.

II. Labour Employed.

The number of persons engaged in the production of munitions in October, 1917, was 2,022,000 men and 704,000 women, as compared with 1,921,000 men and 535,000 women in January. They have thus been increased during the past six months at the rate of 11,000 men and 19,000 women per month. These numbers include those employed in Government and in private establishments, in the principal munition industries, chemical and explosives trades, engineering and munition plants, furnaces and foundries, in shipbuilding and in mining other than coal-mining. The total represents approximately two-thirds of the total labour occupied on Government work in industry.

The number of persons in the above trades working on account of the Ministry of Munitions alone is, of course, smaller than the above total, which includes workers on Admiralty account in munition and metal trades as well as in engineering and shipbuilding. On the other hand, the figures take no account of workers employed in building and construction or in saw milling and wood trades. Including these groups, the total number employed on Ministry of Munitions work proper may therefore be estimated as just over a total of 2,000,000 persons, one-third of whom are women. Even these figures are exclusive of those employed in the production of fuel and in transportation.

NUMBERS OF WORKPEOPLE ENGAGED ON THE MANUFACTURE OF MUNITIONS IN OCTOBER, 1917.

(Exclusive of Admiralty Work.)

—	Establishments.	Workpeople.		
		All males.	Females.	Total.
National Factories ...	143	154,000	196,000	350,000
Private Establishments ...	20,000	1,218,000	448,000	1,666,000
All Establishments ...	20,143	1,372,000	644,000	2,016,000

The increase of female employment in all metal and chemical trades and in National Factories has been as follows :—

NUMBERS OF WOMEN EMPLOYED.

.....	In Metal and Chemical trades.	In Government Establishments.	Total.
July, 1914	210,000	2,000	212,000
July, 1915	253,000	3,000	256,000
July, 1916	440,000	80,000	520,000
July, 1917	616,000	203,000	819,000

In "Controlled Establishments" in which the dilution campaign has been vigorously carried on, the number of women employed is now more than five times as great as at the outbreak of war.

In the National Factories under the Ministry of Munitions the women workers outnumber the men, being employed in the following proportions :—

	Percentage of total employed.
Royal factories	32 per cent.
National projectile factories	47 ,,
Explosive and propellant factories	55 ,,
National shell factories	72 ,,
National filling factories	79 ,,

III. Raw Materials.

Iron and Steel.

The primary task of the Ministry in relation to Iron and Steel has been to increase domestic production by bringing into operation every available blast furnace, by hastening the construction of new furnaces now building—of which there is a considerable number—by increasing the utilisation of domestic ores for the production of pig iron suitable for steel manufacture, and by the extension of steel works for the treatment of such material on an increased scale. The heavy demands for ship plates arising from the new shipbuilding programme necessitate, in addition, a considerable development of rolling mill capacity.

This country has in the past been dependent to a considerable extent on the importation of non-phosphoric ores, employed for the production of acid steel, and, although no diminution of supply is expected from this source, yet the large increase which it is hoped to achieve on the basis of domestic phosphoric ores raises new problems in as much as it necessitates the substitution to a considerable extent of basic lined steel furnaces for those of the acid type with consequent adjustments in metallurgical treatment, supply of refractory metals and the like. Already a considerable number of blast furnaces have been brought into operation under this new plan, while others have been changed over to the production of basic iron. A number of steel furnaces have also been altered to basic linings.

Iron Ore.—During the past year there has been a steady increase in the output of phosphoric ores from home sources, and the total output for the year exceeded that for 1916 by 1,600,000 tons. A much larger increase is anticipated for 1918. In the case of hematite ores, there was a serious falling off in output, in consequence of the strike in August, 1917, but during 1918 it is hoped to raise the output of hematite ore by approximately half a million tons for the year.

Pig Iron.—From new blast furnaces and extensions to plant an ultimate increase of pig iron production is anticipated which will increase the output by one-fifth.

Ingot Steel.—As the outcome of these developments it is estimated that, by the end of 1918, the national capacity for steel production will have been increased by more than 50 per cent.

Steel Allocation.—The current home production of steel is distributed with the utmost care among the various requirements of the army, the navy and the shipyards, leaving for other miscellaneous war and civilian needs only 11 per cent. of the total supply. There is in addition the steel received from America all of which is devoted to war purposes.

High Speed Steel.

The output of High Speed Steel, which before the War was 6,500 tons per annum, has been increased to approximately 15,000 tons per annum. Prior to 1914, tungsten, which is required for the manufacture of high speed tool steel, was not produced in this country. The wolfram ore from which it was manufactured was obtained from the Colonies, but was treated in Germany and tungsten could only be procured from Germany. It is now being produced in sufficient quantities in this country, both for our own requirements and for the substantial contribution to the needs of allied nations.

Non-Ferrous Metals.

A special department of the Ministry was established in March, 1917, to assist in increasing the output of non-ferrous minerals within the United Kingdom. This Department has already laid the foundation for many developments, not only of immediate importance but likely to produce a permanent revival of mining activities in many parts of the country. A few examples may be given :—

A sulphur mine in Wales is being developed, from which it is expected to obtain a large supply of iron pyrites containing 38 per cent. sulphur at a profitable cost. A deposit of coprolites in Cambridgeshire has been proved, which will yield 57 per cent. of tribasic phosphate of lime.

With regard to tin, zinc, lead and wolfram, steps are being taken to stimulate production in a number of mining areas and progress is being made in spite of scarcity and cost of labour and materials. A systematic examination is being conducted into the economic condition of the metalliferous mining industry of the United Kingdom. When complete this will afford the necessary information on which to base a policy for future development.

Sulphuric Acid.

The supply of sulphuric acid is of great importance, not only for the manufacture of explosives, but in industry generally. In May, 1917, the Ministry took over the control of manufacture, use and distribution of sulphuric acid, and established a complete system of control both over dealing and prices. It has also

been necessary to control the repair and construction of all sulphuric acid plant. A vigorous policy of manufacturing development has been pursued by the Ministry during the past year in regard to the construction of new acid plants, both at Government and at private works. During 1917, additional manufacturing capacity has been completed, or is nearing completion, which will give a large increase in manufacturing capacity (omitting concentrated acid which is produced from chamber acid).

IV. The Rationing of Industry.

During the past year the activities of the Ministry of Munitions have been very largely concentrated on the problem of satisfying the growing demand for steel and other industrial metals. The problem is two-fold; on the one hand that of providing increasing supplies and, on the other hand, that of allocating them among rival users in the manner directed by national policy while securing the most efficient technical utilisation and developing to the full all possible economies in consumption.

Priority.

The control of supply carries with it a responsibility, not to the War Office alone, but to all the metal consuming departments, and involves also the duty of providing for purely civilian requirements. The task is thus complicated by the necessity of effecting mutual adjustments with other and rival interests. Indeed, since the sources of supply are world-wide rather than national, the problem is one which necessarily demands the widest co-operation throughout all allied countries.

Since December, 1916, it has been necessary to extend the system of priority regulation to a large number of new trades and industries, in this way increasing the scope of the general industrial control exercised by the Ministry of Munitions for securing the distribution of machinery and raw materials according to the relative urgency of the work in hand. Further, in order to secure uniformity of restriction throughout the Empire, steps have been taken to link up every British possession from the largest to the smallest by means of local priority authorities, upon whose recommendations the urgency of local requirements is assessed.

More recently certain modifications in the treatment of priority have been effected under which the general lines of priority are laid down by a War Priority Committee of the Cabinet which acts as a co-ordinating authority between different Government Departments and with whom rests the decision on questions of policy in regard to the allocation of available resources.

Control of Consumption.

Strict official regulation is now applied to the distribution and consumption of industrial metals. Some of the methods adopted may be briefly indicated in the case of the more important metals :—

Iron and Steel.—The market prices of iron and steel have been subject to regulation since July, 1916, when official maxima were laid down. In November, 1916, steel manufacture was brought under control. In September, 1917, iron ore mines were taken over by the Ministry, full control of output being thereby established.

Another recent development is the establishment of a system of steel allocation to rolling mills in order to secure the maximum output and to distribute orders in the most economical manner, both with regard to carriage and materials and standardisation of output in individual mills. For this purpose the country is divided into areas, each area being under a representative of the Ministry advised by an expert Committee.

Copper and Brass.—At the end of 1916 copper manufacturers were required to make returns of output, and in January, 1917, the Ministry was empowered to take over stocks, becoming at the same time virtually the sole importer of copper by reason of restrictions placed on importation. In this way complete control was established for all dealings in the metal.

Substantial economies have been effected both in regard to the weight of metal required for the production of a particular component, the substitution of second-hand and scrap metal for virgin metal wherever possible, and the development of new alloys. Successful endeavours have also been made to substitute cast iron for brass for certain components of gun ammunition.

The output of brass is also under direct control and its use has been entirely restricted to work of national importance. The output under the care of the Ministry has increased to such an extent that it is now possible to meet all essential requirements from home production.

Zinc and Spelter.—Dealings in spelter were brought under control in March, 1917, and the use of this metal is now restricted to approved purposes. At the same time spelter refining has been actively developed. The production of spelter in the United Kingdom has been more than doubled as compared with the pre-war standard, and it is anticipated that developments now in hand will make the country permanently self-supporting to the extent of 75 per cent. of its pre-war requirements.

Lead.—The Balance Sheet for lead at the beginning of the year indicated the necessity for economy and for an augmented output. Accordingly the use, sale and purchase of lead was brought under control in February, and steps have subsequently been taken to encourage the substitution of scrap lead for pig, and to utilise resources of metal, such as those derived from old battery plates, lead ballast in yachts, and the like.

Aluminium.—Dealings in aluminium were brought under control by licence in December, 1916, and in February supplies of scrap and swarf were taken over, a system of priority rationing being devised which effectively stimulated the substitution of other metals for aluminium wherever practicable. Further economies have been effected in the manufacture of explosives compounds and illuminating compositions, as well as in engine construction. Attention has also been paid to the salvage of aluminium from derelict motor-cars, aeroplanes, &c. This system of control has resulted in the provision of satisfactory uninterrupted supplies for munition purposes with a minimum of dislocation in less essential trades.

Scrap Metals and Salvage.

In February, 1917, a special organisation was set up in the Ministry to deal with responsibility for supervising the collection of all scrap metal within the control of Government departments, increasing the salvage of metal components and scrap metals from the Front and bringing into use any dormant supplies of scrap metal within the country. A very large accumulation of ferrous scrap has been absorbed, and much non-ferrous scrap has been collected from munition factories and elsewhere. The importance of these economies is indicated by the fact that in the case of brass manufacture about 50 per cent. of the metal employed is returnable as scrap or swarf. A steady improvement is also shown in the percentage of the recovery of cartridge cases and other components from the Front owing to the establishment of a new salvage organisation in the Field.

Allocation of Machine Tools.

Although a very large amount of new machinery has been developed by the section of the Ministry responsible for supply, it has also been necessary to secure the most efficient distribution and use of all existing machine tools and industrial plants, and the Central Clearing House, established in the latter part of 1916, has been entrusted with the task of collecting details of idle engineering capacity and investigating the employment of all used machinery with a view to diverting it to a different or better use. This not only secures the maximum utilisation of available plant but, by meeting new requirements from existing sources, ensures considerable economy of time as well as of money cost. Many thousands of machine tools have been transferred under this scheme.

V. Munitions Supply.

With regard to the output of munitions, there has been a very marked increase in production as compared with 1916. The extended programme is now yielding a supply which has been sufficient not only to meet the present demands of the several theatres of war, but to provide in many cases a reserve which enables the Ministry to divert its capacity for production to new

demands which the developments of modern warfare have brought about. The year 1917 has greatly exceeded the earlier years of the war in the expenditure of munitions, but the expenditure has itself been not only an essential condition of success, but has proved to be more than ever necessary for the protection and economy of our fighting forces. It has been proved repeatedly during the operations of the past year how great a saving in life has been secured through the irresistible artillery preparation and the use of improved engines of warfare. It will be recalled that it was during this year that Tanks were brought into general use, and in other departments of munitions supply great progress has been made in perfecting types. Success in munition supplies depends, not simply on the quantity and the quality, but also on the power to devise new weapons and quickly to adjust production to the supply of new types.

The following brief summary indicates the progress in output which is taking place in some of the various branches of munition supplies. Figures are shown in percentages as it is not in the public interest to state the actual numbers.

Guns.—The production of new and repaired guns during the past year shows a very marked increase over previous years. The development in output is illustrated by the fact that in spite of the demands which have been made from other theatres of war and of the arming of merchant ships, which has been carried through, the establishment of guns in France has been increased by 30 per cent., and during the recent offensive more than double the number of heavy guns and howitzers have been employed as compared with the period of the Somme offensive.

Gun Ammunition.—The average weight of shell filled per month this year (1917) is considerably over double that of last year.

Comparing the recent battles in Flanders with the campaigns on the Somme, we fired 80 per cent. more and filled 55 per cent. more ammunition, measured by weight. At the beginning of the offensive the stocks that had accumulated during the winter were enormously greater than at the beginning of the Somme. Present stocks are very much greater than at the end of the Somme offensive.

Explosives.—The amount of high explosives used in the filling of shells and bombs has greatly increased during the past nine months.

Since the beginning of 1917 the output of high explosive has been such that not only has it been possible to meet the increased demands for consumption and to build up large stocks, but also to allocate substantial amounts to our Allies.

The growth in the consumption of propellant powders has followed closely the course followed by high explosives, and in this case, also, all demands have been met in full and a large stock has been built up.

Trench Warfare.—Developments during the last twelve months in the supply of munitions for trench warfare have been chiefly in respect of chemical fillings and aerial bombs.

Aerial Bombs.—The development in aerial warfare has led to a very great increase in the output of different types of aerial bombs during the past year.

Chemical Filling.—The expansion in all chemical output has enabled the weekly output of chemical shells to be increased to six times what it was in November, 1916.

Small-arms Ammunition.—The position with regard to rifles and small-arms ammunition has now become secure, and the ordinary weekly output from British sources is sufficient to cover requirements without recourse to supplies from U.S.A.

In regard to machine guns there has been a steady increase of demand not only in proportion to the growth of the Army but in order to provide for continuous increases in the establishment per battalion, as well as for the needs of the Air and Tank Services.

Aircraft.—The chief of the new supply functions which have fallen upon the Ministry of Munitions during the period under review is the responsibility for the provision of aircraft, the transfer of which was effected as from the 1st March, 1917. This involved the absorption of a very large organisation and has resulted in greatly increased output. It will be remembered that this industry is almost entirely a creation of the war, most of the largest firms with which the Ministry now deals having actually been brought into existence since the outbreak of war, while further important extensions of capacity are now in progress.

Tanks.—There has been a great development during the past year in the design and supply of tanks.

Quality of Munitions.—Maintenance of quality is no less important than volume of output. The Ministry of Munitions can point to a steady improvement in the detonating value of gun ammunition and to a great reduction in the number of premature explosions of shells. With regard to prematures: in the case of 18-pdr. and 4·5-in. ammunition the percentage is only about 25 per cent. of the figures during the latter part of 1916, while the percentage of blinds has also decreased. Detonating value is now almost as high as can be obtained.

Apart from the above output of munitions, reference may be made also to other important branches of supply of war material.

Optical Munitions and Glassware.—Before the war not more than 10 per cent. of the country's requirements of optical glass could be satisfied from British sources, while most of the rest came from Germany and Austria. To-day the output of many grades of optical glass is sufficient not only to meet our own requirements, but also to afford substantial assistance to our Allies. The Optical Munitions Department has now undertaken

the supply of all telescopes and binoculars required by the Admiralty and is controlling and extending the output of nautical instruments. This Department is also now in complete control of glassware in the country and, at the instance of the Food Production Department, has been instrumental in largely extending the manufacture of glass food containers for preserving fruits and other foods, the ordinary supply of containers having been severely restricted through the scarcity of tin plates.

Railway Material.—The Ministry became responsible for the supply of railway materials in October, 1916. At that date the quantity of material already supplied to France was not very large in comparison with later demands, but a very considerable number of contracts were in course of execution. After Sir Eric Geddes had surveyed the situation in France, additional demands were put forward involving large quantities of rails, rolling stock, equipment, &c. The mileage of track involved equals that of the Great Western and South Eastern Railways together, and although none had been delivered before the end of 1916, by the end of September, 1917, 70 per cent. had been delivered. The supply of locomotives required numbers as many as belong to the North Eastern Railway. Less than 10 per cent. had been delivered by the end of 1916, but 60 per cent. of the whole had been delivered by September 30th, 1917. The number of wagons required were as many as belong to the Great Central Railway; 5 per cent. had been delivered by the end of 1916, 68 per cent. had been delivered by the end of September, 1917. Six per cent. of the demands for tractors had been met by December 31st, 1916, and 64 per cent. by September 30th of 1917. In meeting these demands the British Railways and railways contractors have cordially co-operated, but substantial assistance has also been received from Overseas and particularly from the Canadian Government and Railways.

India has also supplied railway material for Mesopotamia, Egypt, East Africa and other oversea railways.

Mechanical Transport.—The output of Mechanical Transport is shown by the fact that the number of lorries in the possession of the Army has increased by 43 per cent. since November, 1916, the number of cars and ambulances by 73 per cent. and the number of cycles by 91 per cent. The increase is in addition to provision that has been made for wastage.

Agricultural Machinery.—In December, 1916, when it became necessary to secure a more adequate supply of farm tractors and agricultural machinery generally, the Ministry of Munitions, on behalf of the Board of Agriculture, was entrusted with the task of providing an adequate output. Since then, some 9,000 tractors and tractor ploughs have been ordered in America and at home. Some 3,300 other tractor implements have also been ordered as well as over 30,000 horse-drawn agricultural implements. The delivery of all the above is expected to be complete by the end of March, 1918.

Munitions Supplies from the Dominions, India and the United States.—In connection with munition supplies reference may here be made to the contribution of the British Oversea Dominions and the United States of America.

Canada's contribution during the last year had been very striking. 15 per cent. of the total expenditure of the Ministry of Munitions in the last six months of the year was incurred in that country. She has manufactured nearly every type of shell from the 18-pr. to the 9·2". In the case of the 18-pr., no less than 55 per cent. of the output of shrapnel shells in the last six months came from Canada, and most of these were complete rounds of ammunition which went direct to France. Canada also contributed 42 per cent. of the total 4·5 shells, 27 per cent. of the 6" shells, 20 per cent. of the 60-pr. H.E. shells, 15 per cent. of the 8" and 16 per cent. of the 9·2". In addition, Canada has supplied shell forgings, ammunition components, propellants, acetone, T.N.T., aluminium, nickel, nickel matte, aeroplane parts, agricultural machinery and timber, besides quantities of railway materials, including no less than 450 miles of rails torn up from Canadian railways, which were shipped direct to France.

India has contributed a large amount of the supplies and quantities of the munitions required by the Mesopotamian Forces, and also quantities of saltpetre, mica, magnesium, manganese ore, for use in munition making in the United Kingdom. In India a Munitions Board has been established which not only deals with priority questions referred to above, but is rapidly organising in a systematic manner all industries in the country connected with the output of war material.

The contribution of Australia has been strictly limited by distance, but she has supplied some shells and quantities of copper, lead, and wolfram and zinc concentrates.

In addition, we have also received from the United States of America during the last year large quantities of raw materials, shell, guns, locomotives, caterpillar tractors, &c.

VI. Munitions Finance.

No branch of the Ministry of Munitions has a more responsible or onerous task than the Finance Department on which has rested the duty of controlling the vast expenditure of the Ministry through a period when many of the normal restraints were necessarily removed and when the urgency of the national necessity militated seriously against financial economy. A system of costing investigation was established soon after the inception of the Ministry, which has supplied a most effective method of preventing exorbitant charges, supplemented as it has been by the actual record of costs provided by new factories under national management. The importance of the resultant savings is indicated by the fact that if the gun ammunition programme for 1917 had been ordered at the prices of 1916 the increase in cost would have been £43,000,000. More than half of this saving was achieved by actual reduction in price, the

balance being due to substitution of different materials. It should be particularly borne in mind that this reduction has been effected in spite of continuous increases of wages.

As is well known, the Ministry has afforded considerable financial assistance to contractors to enable them to carry out their contracts with the Ministry and to increase output. Thus, £20,000,000 have been advanced to manufacturers for the purpose of extending steel and iron works. Similar encouragement has been given to the production of spelter, and indeed to the production of all classes of munitions. The Ministry has arranged financial assistance for large extensions in connection with aircraft production, optical glass manufacture and the increase of potash supplies. These industries will not only be strengthened for immediate war purposes, but are thus laying the foundations of economic independence.

Special mention must be made of the Central Stores Branch which was established in April, 1917, in order to provide an adequate check, both financial and administrative, on the movement all over the country of the vast quantities of materials and munitions for which the Ministry of Munitions is responsible. More than 60,000 individual consignments are made weekly, while the number of articles handled each week exceeds 50,000,000. Each individual consignment of materials, components, &c., must be traced from the time it becomes the property of the Ministry until it is finally passed forward as finished munitions. An important incidental economy is secured by minimising cross traffic in the transportation of the supplies from one part of the country to another and by utilising water carriage wherever possible.

CHAPTER IX.

NATIONAL SERVICE.*

It is becoming increasingly clear that, apart from possible psychological catastrophes, a deciding factor in the war will be the success which attends the strategical use of man-power by the nations engaged. The complexity of the problem of organisation of our human resources increases as the amount in reserve in civil life decreases. Gradually the need for considering the man-power aspect of our activities has spread to cover every section of the nation's life.

Before this war, the value of a country's human resources was commonly estimated in terms of the numbers of armed men that it could mobilise as efficient fighting units in the field. The world was happily unfamiliar with wars on the scale of that of to-day. An European war, even if it ever came, was expected to be short, and in consequence few people appreciated the extent to which a modern war between industrial States, especially one which continued for any length of time, would involve every citizen, and would demand for its successful issue the transformation into a war machine of the whole national organisation. The actual provision of numbers of fighting men is only one aspect of the question. Science has multiplied the variety of resources and equipment necessary for the conduct of war on a large scale, while the industrial organisation of the State, as it exists to-day, has interlocked all parts of the nation and made them mutually interdependent. The far-reaching result of this was but slowly realised as the country was called upon to expand its hitherto exiguous military force. It was essential, for financial and other reasons, that the general volume of national production should, so far as possible, be maintained. At the same time, the Forces were making well-justified though unforeseen demands for supply of various munitions of war, essential in the light of new experience. To meet these demands, the transfer of labour on an extensive scale from its previous occupations to new activities became necessary. Concurrently, it was necessary to maintain the agencies of production, distribution and supply upon which depend the daily life of the civil inhabitants of the country.

The adjustment of these opposing claims, namely, the claim of the Army for recruits and for munitions, and of all branches of civil industry for labour, was a task which would have been difficult if the conditions had been constant. In fact, their respective claims and importance have been varied from week to week. It is the determination of these variations and the giving of executive effect to these determinations which constitute the strategical use of man-power.

* Statistics relating to the present man-power position of the United Kingdom and of the Empire are, in the public interest, withheld.

Up to the end of 1917 about 5,000,000 men, excluding those already serving in the Navy and Army at the outbreak of hostilities in August, 1914, had enlisted in the United Kingdom for service in the present war. A further 2,797,000 were engaged, in the latter part of 1917, on work in connection with the production of munitions and other war supplies. Yet what may be called the domestic business of the United Kingdom has been carried on with but little serious interruption of essential services; in some instances indeed, *e.g.*, the increased production of home-grown food, there has been a positive addition to the resources of the nation. When the history of the war comes to be written, not the least interesting chapter will be that which tells the story of the mobilising of the man-power of these islands for the enlistment of armies on the Continental scale, for the lavish equipment of these armies with all the material of war, and for the maintenance in vigour and efficiency of the population at home, on whom the main burden of production has rested. We have been able to provide in large part for our own war needs and to supplement also the efforts of Allies not so far advanced as ourselves in industrial development.

In the months immediately following the declaration of war, employment fell off in almost all industries except in those then regularly engaged in the manufacture of military material. The curve of unemployment rose with remarkable abruptness, and only declined with the gradual restoration of public confidence. Since those early days it has been an ever-increasing difficulty to satisfy the national requirements of man-power. There is work now for all hands to do, and even those usually classed as "unemployable" are now usefully employed.

The enormous gap left by the recruitment of millions of men and by the withdrawal from the labour market of other millions for the production of munitions of war has been filled by various means. Well over 1,000,000 women have come newly into employment; retired and superannuated men have returned to their former avocations; the unemployed and even the unemployable, as we have seen, have found jobs; less essential trades have slowed down or closed down, and so released labour for essential occupations; the rising generation of young people of both sexes has come earlier into employment. During the war period again overtime has generally been worked, and emigration has entirely ceased. Further, the policy of dilution has resulted in a more economical use of the skilled labour that is still available, and the suspension of restrictive Trade Union customs has tended to greater elasticity and to a largely increased output.

All these causes taken together, however, do not adequately explain how it is that the work of the war is being carried on despite the withdrawal of so great a proportion of the most vigorous and the most highly skilled of our industrial workers. The fact is that in such a community as ours there is latent in peace-time an immense reserve of human energy. This reserve has been drawn on to the full in the last three years. Reference has been made to the general working of overtime. We have

worked longer hours during the war, and we have worked more intensely. This is true of every class of our population. An illustration may be taken from the employment figures of eleven of the Trunk Railways of England. In July, 1914, these railways employed 513,000 men and 9,000 women. 134,000 men have been enlisted and there has been an increase of 41,000 women employees. In addition, there has been a replacement of enlisted men by 42,000 men, generally, no doubt, of less skilled and less able-bodied categories. Even if it is assumed that this body of 83,000 substituted men and women is of equal labour value to the 83,000 railwaymen they replaced—which is certainly not the case—there is, nevertheless, on balance a net loss of 51,000 men on the railways in question. Or take the case of the Local Authorities of the United Kingdom. In all, the number of persons employed by these bodies has declined by about 100,000, while at the same time many new and arduous duties have been thrust upon them. Yet there has been no appreciable decline in the efficiency of local government services. The individual workers have suffered in respect of longer hours of working, in strain and in fatigue, but in both instances the public interests are well and faithfully served. Much the same conditions obtain in all the great industries excepting those, *e.g.*, the building trade, the printing and paper trades, &c., whose activities have been curtailed by direct Government action.

The part that women are playing in the replacement of enlisted men is, of course, of first importance. The statistics show, as has been said, an increase of over 1,000,000 women newly employed, but this figure only applies to those engaged in occupations outside their own homes, and it excludes the 45,000 women engaged in nursing our wounded soldiers and sailors. Very generally the work done previously by domestic servants who have gone into other employments is now done by their former employers, and in a thousand and one different spheres women are rendering war service that is not, and cannot be, the subject of statistical estimate. It is in the lighter occupations, of course—in the Civil Service, in banking and insurance, in the distributing trades, and in clerical occupations of all kinds—that the greater number of newly employed women is engaged. The following table illustrates the course of female employment in but three of the lighter occupations:—

Women Employed.

	July, 1914.	July, 1917.
Banking and Finance	9,500	63,700
Civil Service	65,000	163,000
Commerce	496,000	820,000

The most remarkable figures of all, however, are those that relate to the employment of women in private engineering establishments and in Government shell and projectile factories and Woolwich Arsenal (*vide* Chapter VIII.). Even in so unpromising an occupation as shipbuilding, the number of women employed advanced from 1,400 in July, 1914, to 16,500 in July, 1917.

The drafting of woman labour into war-time employment continues apace. In the second quarter of 1917 135,000 additional women were added to the numbers of those employed in the manufacture of munitions and on other Government work. But for the rallying to war service of the women of our country the wheels of industry could not have been kept in motion, nor could our armies have been maintained in the field.

Our own efforts to build up an army on the continental scale have been magnificently seconded in all quarters of the Empire. The Dominions and dependencies have raised upwards of a million men for the various services of the Army, and the Empire of India has contributed at least an equal number.

Industrial Man-Power.

The story of the means adopted to secure the necessary men for the fighting forces of the Crown is sufficiently familiar. At first reliance was placed upon the purely voluntary system of Recruitment, and, later, upon the system of Group Recruitment initiated by Lord Derby. It was not till midsummer, 1916, that Bills rendering all men, with a few exceptions, between 18 and 41, liable for service, were placed upon the Statute Book. To the country's honour it should be recorded that, before a single man had been brought compulsorily into the Army, no less than 5,000,000 had in one way or another made free offer of their services to fight.

In the first splendid rush to the Colours, no regard was had to the question whether or not, leaving personal sacrifice aside, an individual was doing the best all-round service by enlisting. By the time that men of training and experience were urgently required to assist in the expansion of the industries with which they were familiar, they had, in many cases, been absorbed into the ranks of the Army and were lost to industry. Gradually, but not till after nearly twelve months of war, did the necessity of safeguarding the personnel of certain branches of industry, the maintenance and development of which were essential for the efficient carrying on of Military and Naval operations, secure proper appreciation.

In the autumn of 1916 the Government had under consideration the war programme of 1917, which depended not only upon the provision of drafts to make up the overseas establishments, to repair the 1917 wastage and to provide new units, but also in a great degree upon the adequate fulfilment at home of the requisite munitions programme. For this last demand it was estimated that a reinforcement of approximately 250,000 operatives would be required.

In view of this grave situation and the representations made to them upon it by their military advisers, the Cabinet decided in August, 1916, to establish a Man-Power Distribution Board, whose functions should be to survey the whole field of possible supply and advise the Cabinet as to the most economical method

of its employment. In that act the State first officially recognised that the ultimate control of recruiting is not a function which should be in the hands of the Department responsible for using the Army in the Field. The Board, however, like its predecessors, took no part in recruiting for the Forces, but confined its work to maintaining a supply of labour for the country's industries.

Looking back, in the light of fuller knowledge, nothing stands out more clearly than the loss of efficiency and of time occasioned by the lack of any real connecting rod between these several pieces of machinery and administrative devices designed to maintain equilibrium in the realms of trade, munitions production and recruiting. It was largely with the hope of supplying this deficiency that it was decided in December, 1916, to establish a National Service Department, over which Mr. Neville Chamberlain patriotically consented to preside. Its purpose was, in the words of the Prime Minister, "the mobilisation of the labour resources of the country," the early and successful accomplishment of which was one of the main conditions of successful prosecution of the war.

At the outset of its work the Department found itself faced with a situation in which it was thought necessary to prepare at once for the further release of men for the Army from Munition work, to reinforce largely Agricultural labour, and at the same time to maintain, and even expand, the industrial output. It was accordingly decided to issue an appeal to all men between the ages of 18 and 61 to enrol for National Service as National Service Volunteers, with the object of their taking up the work of other men released for the Army or transferred for work in war industries. In response to this appeal, about 400,000 volunteers enrolled.

In default of very well defined agreements with the other Government Departments interested in the working of the scheme, difficulties and delay were unavoidable. In addition, harm was done by a popular misunderstanding of the purpose of the Department. From an unlimited appeal for volunteers to place themselves, if and when required, at the disposal of the Director-General, for national work, the impression grew that the Department existed with the object of at once placing applicants of every kind and description upon work that they desired at remunerative rates—in fact, that it was a great National Employment Agency. This it never was, and never was intended to be. Moreover, it should be remembered that those who were primarily responsible for its administration were to a great extent working as pioneers in uncharted country, and that, for those who were to follow them, the value of their experience and labour cannot be easily over-estimated. Much useful work was accomplished with the assistance of Trade Committees by reinforcement of labour in important industries, by part-time schemes set on foot by Local National Service Committees in the country, and last, but not least, by the assistance given at

a critical moment to Agriculture. Through the agency of its own agricultural Commissioners, the Department was responsible for placing on the land its own volunteers, some 60,000 soldiers who were temporarily released from the Army for the work, and women volunteers. The contribution thus made, under Mr. Chamberlain's direction, towards the securing of the increased food production of 1917 was of great service.

Probably the most valuable result achieved by the Department was through its Labour Advisory Committee, which succeeded in establishing the very excellent relationship now existing between employers and employed in connection with the Trade Committees. Still, even if the Department had not laboured under the disadvantages above mentioned, it is open to question whether, as at first constructed, it could ever have fully attained the objects for which it was created. It would still have retained the defect in its constitution, in that, being professedly an organisation instituted to direct and control the whole man-power supply of the country, it was divorced from direct administrative responsibility for one of the principal sections of its subject, the conduct of recruiting. As long as this artificial and unnatural separation was maintained, so long the system was bound to suffer loss of power.

Co-ordination of Man-Power Distribution.

It was in these circumstances that the War Cabinet in August, 1917, decided on a complete reconstruction of the Ministry of National Service, and entrusted the control to Sir Auckland Geddes.

The instructions of the War Cabinet defining the functions of the new Ministry of National Service are explicit and comprehensive.

It is convenient here to quote them *in extenso*:—

Conditioned by the powers conferred by Parliament:—

1. To review the whole field of British man-power and to be in a position at all times to lay before the War Cabinet information as to the meaning, in terms of man-power and consequential results, of all Departmental proposals put forward to the War Cabinet, and referred to the Ministry for its consideration and for an expression of its opinion.
2. To make arrangements for the transfer from civil work, not declared by the War Cabinet to be of primary importance, or if ordered by the War Cabinet from the Navy, Army or Air Service to urgent national work, of such numbers of men as may be declared by the War Cabinet to be necessary to reinforce the labour already engaged on that work.

3. Subject to the approval of the War Cabinet to determine, in consultation with the Departments concerned, the relative importance of the various forms of civil work, and to prepare from time to time lists of reserved occupations, with such age and other limitations as may be necessary to secure the maintenance of essential public services, and the preservation of a nucleus of civil occupations and industries.
4. Within numerical limits imposed by the War Cabinet to obtain for the Army, Navy and Air Service such men as can be withdrawn from civil life without detriment to the maintenance of essential public services and the due performance of the civil work necessary to maintain the forces at sea, in the field, and in the air, and any nucleus of civil occupations and industries declared by the War Cabinet to be necessary.
5. In connection with Function 4, to determine the physical fitness of men available or possibly becoming available for withdrawal from civil life.
Note.—Functions 4 and 5 are limited by the action of the Tribunals acting in conformity with Regulations and Instructions issued to them under authority derived from the War Cabinet in England and Wales, by the Local Government Board; in Scotland by the Scottish Office.
6. To make arrangements for the provision, where necessary, of labour (male and female) in substitution for that withdrawn from civil life in accordance with Function 4.
7. Any other duty which may from time to time be allocated to the Ministry by the War Cabinet.

The duty is therefore laid upon the Minister of preparing estimates of available man-power for the consideration of the War Cabinet upon which they can frame policy according to the relative importance of respective needs. For that policy, when determined, it is the duty of the National Service Ministry to provide the men. For this purpose the Government has vested in the Ministry of National Service a general power of control over the movement by other Government Departments of the mobile labour which is employed by them, in order that the services of men who have enrolled as volunteer workers may be utilised to the best advantage on the most urgent types of war work. Henceforth a single agency will be responsible at once for providing the Army with approved complements of fighting men for home and foreign service, and at the same time for meeting—to the limits of what is possible—the essential demands of vital industries. By the transference of recruiting to a civilian Department designed to control the allocation of industrial labour, a long step forward has been taken in the direction of securing a balance of policy with regard to the strategical use of man-power.

The task of discriminating between the mutual claims of Trade, Trench and Bench is no longer to be left as in the past to accident, or to depend upon the pull of rival forces.

The work of the Ministry, therefore, may from one point of view be described as a vast clearing house for all man-power requirements. From another point of view it is the War Cabinet's General Staff on Man-Power, working out in detail schemes and estimates of what the men and women of the nation may be expected to perform. From still another point of view, it is a great executive department directing the movements under its orders of thousands of men and women.

Touching as it must the nation's life at every point, it was of primary importance, in order to avoid dangers of overlapping, that its relation with other Government Departments should be defined.

This has been done by inter-departmental arrangements under which co-operation is assured between the Departments, and their respective functions co-ordinated in relation to such matters as the regulation of the demand and supply of labour, the collection and distribution of full statistical information, the movement of volunteer workers, and the release of soldiers from the Colours for War Work.

In addition to the Secretariat and Finance Departments, the work of the Ministry of National Service is divided among the following Departments, each with important sub-divisions of its own: Recruiting, Medical, Registration, Labour Supply, Trade Exemptions and Statistics. An essential feature of the reconstructed Ministry is that each administrative department has the assistance of an Advisory Board. These Advisory Boards are composed of representative men possessing independent and first-hand knowledge of the matters dealt with by the Department to which they are attached, and are also in close touch with the existing professional and industrial organisations. It is therefore hoped that, in addition to acting in an advisory capacity, they will also be of great value in maintaining liaison between the Ministry and the different interests throughout the country with which it has to deal.

Recruiting in Civilian Hands.

As a result of the deliberations of the Select Committee on Recruiting Medical Boards, it was decided not only to transfer recruiting to the Ministry of National Service, but also to entrust the reorganisation of the medical examination of recruits to the same authority. This has been done with eminently satisfactory results. Thus, a further important step in the co-ordination of man-power was taken.

As effective recruitment is dependent upon recruiting, medical examination and registration, these three sub-divisions of the Ministry of National Service will be dealt with simultaneously.

At the Ministry, and upon the Council, there is a Director General of Recruiting, a Controller of Registration and a Chief Commissioner of Medical Services. The Director-General of Recruiting is responsible for the recruiting duties throughout the country; the Controller of Registration for the preparation and maintenance of the Register upon which reviews of the man-power of the country and recruiting operations are based, and the Chief Commissioner of Medical Services for the medical side, including the examination and grading of recruits, the provision of medical practitioners for the Navy, Army, and for the Air Service and Pensions Ministry, as well as safeguarding the interests of the civil population in this respect. The country, for administrative purposes, has been divided into ten Regions, which are again in their turn subdivided into Areas.

In order to secure the fullest possible measure of decentralisation, each Region reproduces the organisation of the Central Headquarters. At the Head is the Regional Director of National Service. In selecting men for these appointments it has been Sir Auckland Geddes' object to secure men of wide general experience rather than technical experts in any particular branch. The Director of National Service is assisted by a Deputy Director of Recruiting who has had a full experience of the whole recruiting machinery. With the Regional Director are associated representatives of the other branches of the Ministry; Labour Supply, Registration, Statistics and Medical—the last named representing the Chief Commissioner of Medical Services, and being responsible for the organisation and administration of those services within the Region.

It is convenient here to deal in more detail with the National Service Medical Boards than with the other portions of the machinery for obtaining men for the Army, as these Medical Boards more nearly affect the individual. The National Service Medical Boards are composed entirely of civilians, and Sir Auckland Geddes has been able to secure upon them the services of eminent and distinguished medical men. Codified instructions have been issued to all these Boards in order to make the standard of medical examinations uniform as far as possible. Every man who presents himself will be carefully examined; any man who is dissatisfied with the decision may apply for re-examination. If he still feels himself aggrieved, or if the re-examination is refused, he may then state his case before an Appeal Tribunal. To each Appeal Tribunal Medical Assessors appointed by the Local Government Board are attached, and the Tribunal may, if they think necessary, order the man to be examined by the Medical Assessors.

Reserved Occupations Committee.

Apart from the re-arrangement of the Recruiting and Registration Systems, some modification is proposed in the method of selection of men for the Army. Arrangements have been made

whereby the Army will notify in detail the exact Classes of service for which given numbers of men are required, so that the men to meet these demands may be selected with a due regard for the requisite types of skill and physical fitness. The existing system of Protection and Exemption will also need revision in the light of present necessities. In the one case, this will involve reconsideration of present undertakings and pledges to Trade Unions, and in the other it will be necessary that powers be given to the Minister of National Service to cancel exemptions granted on occupational grounds.

It is necessary to state briefly the methods that are being adopted to protect other essential industries apart from those already safeguarded by Protection Certificates. The Minister of National Service has reconstructed the Reserved Occupations Committee, adding one or two other members of general business and industrial experience representing the views of Employers and Trades Unions, but eliminating from the membership of the Committee all representatives of the Man-power using Departments, notably the Recruiting Department on the one hand and the Board of Agriculture, Ministry of Munitions and Contract Departments of the Admiralty and the War Office on the other. The intention is that the Committee shall hold the balance evenly between Recruiting and material needs of the Army and Navy, the interests of foreign trade, and the general necessities of the civil population, and shall consider these various points of view in a disinterested and judicial manner.

The existence of protection by Certificate and of the Reserved Occupations Committee, guards against the depletion of the pool of labour, but cannot in any way prevent a shortage in one industry and an excess in another. The demands for labour in every industry are bound to vary. In some cases supply may, for the moment, outstrip demand; in other cases some new weapon may be found to be of exceptional value, and its immediate production on an extensive scale becomes imperative. Therefore as military forces have to be grouped to strike, now at one strategical point, now at another, so the industrial forces must be concentrated now on one essential section of munitions, now on another. Figuratively speaking, the swinging of human effort now in this direction, now in that, is the executive side of the strategy of man-power.

The Two Priority Committees.

To control this strategy, two Priority Committees have been set up. The War Priority Committee composed of General Smuts, the First Lord of the Admiralty, the Secretary of State for War, the Minister of Munitions, the Secretary of State for the Air Service, and the Minister of National Service, decides what are the most immediately pressing needs, that is to say, in what direction industrial energy shall be concentrated.

The functions of this Committee in regard to man-power are limited to its industrial employment. It determines the changing

needs for its concentration or dispersion. In short, the function of this Committee presided over by General Smuts is to be the Commander-in-Chief of the labour forces of the country.

The other Priority Committee is the National Labour Priority Committee of the Ministry of National Service. Its function is to set in motion through Employment Exchanges and Trade Committees the machinery for the carrying out of instructions of the War Priority Committee. As one example of what has been accomplished, during 1917, through the machinery of the Employment Exchanges no less a number of vacancies than 731,000 for men, and 804,000 for women have been filled. To enable its orders to be made effective, it has been found necessary to supplement existing labour, and the various schemes to attain this object can here be shortly dealt with.

Volunteers for war work are being enrolled under two heads either for a period of one year, or for the duration of a specified piece of work. Enrolment does not take place until the Volunteer's services are actually required. Requirements for Volunteers are notified to the Employment Exchanges and the Trade Committees, and these organisations undertake the enrolment of the individual after investigating his capacity for the work to which he is to go. Already a considerable number of War Work Volunteers have been enrolled and placed. As an example of the sort of work being done, the transfer of hundreds of coal miners from Scotland to the iron ore mines of Cumberland may be mentioned. In this connection, considerable assistance has been rendered by Trade Committees formed of the employers and employed in any industry and by Trade Unions; and it is hoped that this system may be greatly developed.

Prisoner Labour.

A further source of labour supply that has been fully exploited is provided by the Naval and Military Prisoners of War in this country. By far the greater proportion of the prisoners captured are employed overseas, but excluding officers, non-commissioned officers and invalids there are in this country some 30,000 such prisoners and of these all but 400 are definitely allotted to employment. Some are employed on waterworks, others are at work on roads, some are mining, some quarrying, others are building extensions to factories, thousands are felling timber, thousands more are at work on the farms, and some are building tuberculosis sanatoria.

Substitution.

Separate from the problems of concentrating and dispersing labour there is the cognate problem of providing substitutes for men withdrawn from civil life for naval and military service. This is in some ways the most difficult of all the problems which confront the Ministry of National Service. It will be remembered

that it was with the intention of providing a mass of potential substitutes that the original National Service Scheme was launched. Before that, substitution had been carried out under the Recruiting Department, which placed about 40,000 substitutes in the autumn of 1916. Now a great new movement is under way. The whole of the men in the Army at home who are unfit for general service are being catalogued in a card index showing their civil trades and the employers for whom they worked before enlistment. By arrangement between the Army Council and Ministry of National Service, these men will form a great pool from which substitutes can be drawn to replace men taken for military service if such replacement is necessary. It is the development of this scheme which has rendered it possible to do away with the old pool of National Service Volunteers. Not only will this pool be drawn on for substitutes, but in case of necessity for reinforcement for labour on work of national importance. The work of indexing the men is almost complete. Under it, it is hoped to get back into civil life many thousands of men who have done their duty to their country in the field and to draw into the Army thousands whom up till now it has been necessary to leave in civil life.

But this is not the only arrangement that is being made to effect substitution. It has been arranged with the Ministry of Labour that the Local Advisory Committees now being set up by that Ministry shall supervise the work of providing local substitutes for men ready to be called up for the Army.

Local sources of supply from which substitutes may be drawn are :—

- (1) Men referred by Tribunals for work of national importance as a condition of exemption.
- (2) Men whose names are on the registers of the Employment Exchanges.
- (3) War Work Volunteers.

Potential substitutes are being interviewed, their capacities determined, and a list of such substitutes compiled according to industries. Trade lists on similar lines of all men of military age, who can be released if substitutes are found, are also being compiled, showing the categories of all such men. Substitution will then be effected by a system of exchange.

If substitutes cannot be found within the Committee's own area, application will be made to Headquarters, who may know of surplus local substitutes in other districts. If they do not, the Army will be drawn on.

Part-time Labour.

The next subject for consideration in this connection is part-time labour, which falls broadly into three divisions. Firstly, there is that which is already employed by great voluntary organisations, such as the Volunteers, Special Constables, Y.M.C.A., etc.

The policy of the Ministry is to recognise such approved Associations as being engaged in work of national importance, and to urge and divert suitable labour into these channels. There is, however, grave fear that some organisations, especially those connected with women, are absorbing a considerable amount of human power, but only utilising it for a trifling number of hours a week. If those who are already so employed can increase the number of hours they devote to part-time work, and can even be reinforced by others, it will be possible to release many workers for whole-time employment in other work of national importance.

Under the second head falls the part-time labour occupied in industry, agriculture and other occupations. Arrangements are being made to organise this type of labour through local committees, whose duty it will be to find out the demand existing for it, and then secure the services of those willing to undertake it.

The third section of part-time labour may be described as seasonal labour. Through the same committees it is intended to secure the assistance of people for harvest, fruit-picking and other special work. Special appeals will be issued for labour of this kind.

The Women's Corps.

It would be impossible to close a review of the field of National Service without referring to the admirable work which has been, and is being, undertaken by the various corps of women. Through their efforts the Army, the Navy and the Air Force are able to secure the services of women for many forms of service which, in the past, have been undertaken by men, thus enabling men to be released for service overseas. At the same time the unceasing work of the Nursing Service and the V.A.D. continues and grows, and the numbers of women working on the land increase also.

The gradual development of these corps and units resulted in the multiplication of separate recruiting organisations with a corresponding diffusion of effort. This led in some cases to competition and in others to waste of power, owing to women, suitable for one form of service, offering their services to a corps or unit which was unable to use them and had no arrangements to place the offer at the disposal of another organisation. It has consequently been decided to establish a Central Control for the recruiting of women, and a Branch of the Ministry of National Service has been formed to deal with the matter and to put an end to the competition in recruiting between the different branches of the Government Services which has obtained hitherto. By this means it is intended that recruiting for women shall be carried out on a common basis and under common guiding principles so that the services of a woman who offers for one kind of work for which she may be unsuitable may be available for one of the many other kinds of work which are available, and that a woman applying to any recognised Recruiting Office shall be able to know all the types of work that are required.

It is further proposed to harmonise conditions, wages and employment under which the various Corps and organisations recruit, so that similar work will receive similar remuneration in all Branches of the Service. The various organisations which will be approved for recruiting will be connected through this Central Control. It will probably be necessary to establish at the various centres in the country, receiving and distributing hostels for women, in order that they may be examined and accepted for the appropriate work of national importance, and may be sent to that work with the least possible delay. Arrangements are being made for Selection Boards and Medical Boards to be established at these centres in order that women may be examined as to their physical as well as to their industrial and other suitabilities for the work which is offered.

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On January 14th, 1918, Sir Auckland Geddes introduced into the House of Commons a Bill to amend the Military Service Act, 1916, and took occasion to make a general survey of the Man-power situation. At the outset of his statement he pointed to the fact that the British armies in the field have grown progressively with every year of the war. They were stronger in December, 1916, than they were in 1915, and stronger again in December, 1917, than in December, 1916. The rumours circulated in some quarters that recruiting had broken down and that the armies on the various fronts were melting away for lack of recruits were shown to be devoid of foundation. On the other hand, demands on British man-power were bound to increase up to the point when the forces of the United States were in a position to take the field in full strength. In the year 1918 a minimum of 420,000 to 450,000 men would have to be taken from civil occupations if the necessary expansions in the naval and air services were to be made and if the armies were to be adequately maintained.

Three far-reaching changes in recruiting—the lowering of the military age, the raising of the military age, and the application of conscription to Ireland—had been carefully considered by the Government and had been rejected in turn. Neither immature lads nor men beyond the present military age were to be taken, while large numbers of young men remained in industrial occupations. It was to this latter source of supply that the Government turned with confidence. When this step had been taken there would remain a reserve of man-power adequate to the efficient maintenance of essential industries and available for throwing into the military scale should the fortune of war make such a call necessary.

CHAPTER X.

INDUSTRIAL RELATIONS.**The Ministry of Labour.**

One of the first acts of the Government was to set up a Ministry of Labour as an addition to the permanent machinery of Government. This reform had been pressed for by the Labour movement for many years, and the increasing difficulty and complexity of the industrial situation arising out of war conditions made it more than ever apparent that a Department was needed whose sole function should be to deal with Labour matters, not merely in the narrow or political sense of the word, but in its broader significance as covering the interests of industry at large. The office of Labour Adviser to the Government had already been constituted during the war, but this office had no administrative functions, and confined itself merely to giving advice on Labour questions. The Ministry of Labour inherited its functions, but in addition there were assigned to it the Chief Industrial Commissioner's Department, the Employment Department, the Trade Boards Branch, and subsequently the Labour Statistics Department, of the Board of Trade. Owing to the variety and complexity of the arrangements for dealing with Labour questions, which had already been called into existence by the war, it was not thought possible at that time to assign to the Ministry all the functions that a Ministry of Labour might otherwise have been expected to perform. Yet for the first time a real Ministry of Labour was constituted, presided over by a Labour Member of Parliament, with an ex-Chairman of the Party as its Permanent Secretary.

The outstanding events of 1917 in connection with Labour problems have been the institution of the enquiry into the cause of industrial unrest, the publication of the Whitley Report, the measures taken by the Ministry of Munitions to alleviate hardships arising under the Munitions of War Acts, and the setting up of Agricultural Wages Boards.

When the Ministry of Labour came into existence, it found itself face to face with a situation of considerable difficulty. The effects of the great industrial upheaval which had been brought about by the demand for munitions and the withdrawal of a large part of the male population were beginning to make themselves felt in a number of directions, and were aggravated by other troubles arising directly out of the war, such as the prices of food-stuffs, the strain due to long hours of overtime and Sunday work, and the working of the Military Service and Munitions of War Acts. It was inevitable that the rapid changes introduced in order to accelerate the production of munitions of war, the extensive dilution of male labour by the introduction of women, the revolution effected in the relationship between skilled and un-

skilled workmen, and the great extension of repetition work should create a sense of unrest and frequent causes of friction in the workshops. Moreover, the prohibition of strikes by the Munitions of War Act deprived the Unions of their ordinary bargaining power, and generated a feeling among the workers that their Executive Councils, on which they could usually rely to represent their grievances, were no longer in a position to make their demands effective. This feeling was no doubt largely due to the fact that the Executives, who had throughout done their best to help the Government to meet the tremendous demands made by the war both on man-power and production, were unable to explain fully to the rank and file the need and urgency of these demands as presented to them by the Government. It was further aggravated by dissatisfaction with the working of the Committee on Production, the tribunal set up under the Munitions of War Act to arbitrate on disputes arising in the munitions industries; and one of the first tasks of the Ministry of Labour was to overhaul the machinery for arbitration. On its advice the Government reconstituted the Committee, dividing it into two panels, each consisting of a neutral chairman, a representative employer and a representative trade unionist. These panels did not confine their sittings to London, but heard cases locally wherever possible. The result was that the Committee worked with much greater rapidity, and any ground for complaint on the score of delay was removed as far as it was possible to do this. At the same time full consideration of the difficult cases with which the Committee often has to deal was ensured. The re-arrangement also enabled the Chief Industrial Commissioner to devote his energies to the work of conciliation, which has of necessity greatly increased, since almost every important dispute may affect the output of material connected with the war, and Government intervention is therefore much more necessary than in time of peace.

One of the first results of the outbreak of war had been to bring about a great reduction in the number of persons on strike or locked out. The great building strike which had been going on for some months in London, for example, was promptly brought to an end, reflecting the widespread feeling that, when the State is in danger, internal dissensions should be suppressed. This initial realisation of the importance of internal unity did not, however, continue in full measure, and in 1915 several large strikes occurred, the most important of which was a strike of coal miners in South Wales. In May, 1917, extensive strikes took place in the engineering trades.

Industrial Unrest Commission.

If strikes were neither so numerous nor so prolonged as was the case before the war, there was nevertheless a definite revival of industrial unrest, and on June 12th the Prime Minister appointed a Commission "to enquire into and report upon Industrial Unrest, and to make recommendations to the Govern-

ment at the earliest practicable date." The Commission was divided into eight panels, which surveyed the situation in eight different divisions of Great Britain. The several panels consisted each of three persons—a representative employer, a representative of labour and an independent Chairman. (In the case of the Yorks and East Midland panel a fourth Commissioner was appointed.) The work of the several panels was carried out with such expedition that their reports were submitted to Mr. Lloyd George within five weeks from the date of their appointment. Carried out as their investigations were under conditions of extreme pressure, their work was most skilfully and thoroughly done. Their reports are documents of permanent value, and their recommendations have stood the test of subsequent criticism.

There was a remarkable unanimity in the evidence gathered in the eight areas. First it was proved that, in spite of unrest, the fortitude of our people and their devotion to the national cause were wholly unshaken. In his Summary of the Reports, the Right Honourable G. N. Barnes says :—

“ A comparison of the Reports shows that there is a strong feeling of patriotism on the part of employers and employed throughout the country, and they are determined to help the State in its present crisis. Feelings of a revolutionary character are not entertained by the bulk of the men ; on the contrary, the majority of the workmen are sensible of the national difficulties, especially in the period of trial and stress through which we are now passing.”

The principal cause of industrial unrest was in each case discovered to be attributable to high food prices, the unequal distribution of supplies and the general belief in the existence of profiteering. There was a widespread demand for a thorough system of food control which should ensure equal supplies being available to all classes, and should also ensure that advantage should not be taken of the shortage to inflate prices. In proportion as these objects are being attained by the present system of food control, the unrest due to these causes may be expected to diminish. On the other hand, it has to be remembered that the workman with his smaller purchasing power has a smaller range of commodities within his reach, and that want of sufficient food tells more hardly on him than on other classes, owing to the physical exertion which he is required to put forth. Moreover, the rise in wages which he has obtained has not on an average kept pace with the rise in prices, although some classes of workmen are earning considerably higher wages than they were before the war. These facts account for the continual demand for higher wages, which are put forward in various industries, and make it necessary that increases granted should be based on a uniform and easily understood principle applied throughout the whole country—namely, on the cost of living. The Ministry of Labour has constantly worked to secure this end, and although

it is impossible to regulate wages on entirely uniform lines, the efforts of the Ministry have been directed to securing the greatest possible degree of co-ordination. Two other main causes of unrest were generally given by the Commissioners—namely, dissatisfaction with the administration of the Munitions of War Act and with the Military Service Act. Minor causes were reported to be, in some districts, shortage of housing accommodation, the Liquor Restrictions and industrial fatigue.

Leaving Certificates and “Dilution.”

Under Clause 7 (1) of the Munitions of War Act, 1915, a workman employed in the production of munitions could not leave his employment until he held a certificate from his employer showing that he had his employer's consent, or a certificate from the Munitions Tribunal showing that consent had been unreasonably withheld. Leaving Certificates were unpopular from the first. As a temporary provision to prevent migration of labour at a crisis when employers with more contracts on their hands than they knew how to execute, were bidding against each other for the services of a limited number of skilled men, the introduction of the system was probably necessary, but it savoured too strongly of “industrial conscription” to be allowed to last a day longer than the imperative exigencies of the war required.

In the summer it was decided that the Leaving Certificates should be abolished. The power to abolish them by administrative action was taken in the Munitions of War (Amendment) Act, 1917; and that power was exercised a few weeks afterwards. The abolition was unconditional; but the trade unions were asked, and agreed, to exert their influence to prevent any disconcerting dislocation of the labour market; and certain safeguards were introduced which, it was hoped, would minimise if they did not nullify a risk which it was neither politic nor possible to ignore. The chief of the safeguards were these:—

- (1) It was forbidden to employ on non-munitions work a workman who had since the passing of the Act been employed in or in connection with munitions work, except with the consent of the Minister of Munitions.
- (2) The War Munitions Volunteers scheme was extended on the lines set out below.
- (3) The rate of remuneration of skilled men on time-work who, in many cases, were earning less than unskilled men on piece-work, was increased by $12\frac{1}{2}$ per cent.

The first of these provisions held out to the men very strong inducements to remain stationary instead of exercising their new privilege of migrating. The second offered an additional inducement of the same nature to a special class of men who were likely to be specially tempted to migrate. The third removed an old standing grievance of which a good deal had been heard, and of which more would have been heard if the class of men directly affected by the conditions had not been comparatively small.

“Dilution” has been a lesser but still serious cause of unrest. It is not so much the principle of dilution itself as its application in individual firms and districts that raises opposition, and this opposition is intensified as dilution is extended to more highly skilled work. A considerable minority of Trade Unions were prepared to accept it on private and commercial work. Its acceptance by all of them would have solved the problem in so far as it admitted of solution, and the spring and early summer of 1917 were occupied with the attempt to overcome the objections taken to the proposal by the Amalgamated Society of Engineers and the Electrical Trades Union. A thorough discussion of the subject in all its bearings demonstrated that those objections were not only more firmly entertained, but also better founded than had been supposed. Dilution on private and commercial work was dropped; and other means were sought to keep the supply of labour up to the desired mark.

The chief points to be noted in this connection are the following:—

- (1) So far as war work is concerned, the policy of dilution has been continuously applied throughout the year. The number of women employed in the manufacture of munitions, both on work customarily done by men and on work not ordinarily done at all in peace time, has steadily and continuously increased. At the same time, while the demand for labour has consistently grown, the unsatisfied demand, though it fluctuates, was on the 19th October some 11,000 below the highest figure reached.
- (2) This result has been made possible by the development of the plans for the training of labour. The training schools have been more and more assimilated to work-shops, with results most advantageous to efficiency. In January, 1917, the number in training was 1,858; at the end of October it was 3,000, and of these pupils 962 were women.
- (3) The War Munitions Volunteer scheme has been extended by the provision that men of certain specified trades engaged in the production of munitions who were, on September 1st, 1917, living away from their homes, might be assigned by the Ministry of Munitions to their existing employments, and receive any Subsistence Allowance to which they were eligible, provided they enrolled as War Munitions Volunteers. The change is too recent for full statistics showing its results to be accessible; but certain figures can already be given. The number of volunteers enrolled in July, 1915, was approximately 100,000. At the end of October, 1917, the total was 185,683, and of these no fewer than 2,022 had been enrolled in the course of the last week.

- (4) The Army Reserve Mmunition Workers' scheme has also been steadily developed during the period under review. It only dates from October, 1916, and the number of men who had started work under the scheme at the beginning of 1917 was only 1,662, but the number reported to have started work up to the end of October was 41,438.
- (5) Special recruiting offices for dealing with the enlistment of munition workers were set up last May in each munitions area, in order to prevent injustice in the matter of the exemptions provided for under the Schedule of Protected Occupations, and to ensure that the recruiting officer should not lay hands hastily upon men whom the Ministry of Munitions needed in the factories—a fruitful occasion of friction, and even a cause in the past of strikes.

Other Causes of Unrest.

In regard to certain relatively minor causes of unrest the Ministry of Munitions have taken the following steps:—

- (1) It was found that much ill-feeling had been brought about by the prosecution of workmen by their employers before the munitions tribunals; it was decided, therefore, that prosecution should henceforth be undertaken by the Ministry.
- (2) There had been many complaints of delay in arbitration proceedings; and it was obviously desirable that disputes should be brought as speedily as possible to a point at which an adjudicator could give his award and settle them. To that end, the Ministry took power to refer disputes to arbitration on its own initiative instead of waiting, as it had previously been obliged to do, until they were brought to its cognisance by one or other of the parties.
- (3) A third difficulty was what is called "victimisation." After a dispute had been settled, there was always the possibility that the men who had fomented it might be made to suffer for their activities, even if they had gained their cause. "No victimisation" was therefore a condition on which strikers always endeavoured to insist when strikes were settled. Victimisation has now been made a punishable offence under the Munitions Act of 1917.

There is a more fundamental cause of unrest which was not so fully dealt with by the Commissioners, as it did not arise so directly out of war conditions. The war, by introducing new and complicating conditions into a number of industries, has intensified many of the causes of dispute between capital and labour which existed in times of peace. In the engineering trade especially the skilled man views with much apprehension the large introduction of semi-automatic machinery which places work

which could previously only be done by fully trained craftsmen within the compass of any man or even woman, after a short period of instruction. He fears that this may lead to the debasing of his craft and the lowering of the standard of wages in his trade after the war, and this fear is increased by the emphasis laid on the necessity for a maximum production in order that the country may regain its previous industrial position. He sees that many of the safeguards which have been established by the trade unions in times of peace, in order to prevent excessive hours of work and the exploitation of cheap labour, have been swept away by the imperative demands of war production, and he faces the future with the apprehension that his conditions of work after the war will be considerably worse than they were in the past. These doubts, which have been created by the war, have aggravated the feeling which had been growing during the past decade that industry was becoming dehumanised, and that the worker no longer had an incentive to take an interest in his work. In other words, he wanted more individual consideration and some voice in the determination of the conditions under which he should work. Thus a deep underlying cause of unrest consisted in the feeling of uncertainty as to the future and a desire for a new relationship between employer and employed. On the side of the employer a similar feeling had been gaining ground. It was coming to be more generally recognised that the best work was not produced by the longest hours, and that low wages are not really economical, but that the essential factor is the material welfare and the state of mind of the workman himself. If he has a real interest in and understanding of his work, and if he feels that by putting forth his best effort he is assured of a higher wage without any attempt to cut it down when he reaches a high figure, he is far more likely to produce good results than if he works long hours which reduce his physical energy and is paid a wage which makes it difficult for him to maintain himself and his family.

All these questions are fundamental to the relations between employers and employed, and will have to be thoroughly dealt with if these relations are to be happier in the future, and if the country is to regain its industrial position in the world. A considerable step was taken in the right direction when the Report of the Whitley Committee was published in June last. This Committee, consisting of a number of representative employers and Trade Union leaders, proposed a machinery for the permanent association of employers and workmen by the constitution of National and District Councils for the consideration of large questions affecting each organised industry, and for the setting up of Works Committees in those industries where they might be required owing to the fact that there was not sufficient contact between the management and the representatives of the workers in the shops. This Report was circulated by the Ministry of Labour to all the leading employers' associations and Trade Unions with a letter asking for their general opinion upon its recommendations. That opinion was almost unanimously

favourable, and the Government accordingly decided to adopt the Report as part of their policy in regard to industrial reconstruction. The Ministry is now taking steps to assist the formation of Councils in those trades which are ripe for them, and to make the effect of the Whitley Committee proposals more widely known to both the employers and workmen. An Industrial Council has already been constituted for the Pottery Industry, and Councils are in process of formation for other important industries. The establishment of Industrial Councils will mark a new era in industry, as it will enable the principal industries to regulate their own affairs through representative bodies of employers and workers to a far greater extent than they have done in the past, and to give joint advice to the Government of the day as to how far further State interference by means of legislation is or is not desirable. It will also associate the workers with the employers in the solution of the difficult problems of the reconstruction period, which can only be successfully dealt with by all concerned in the various organised industries co-operating to work out the best method of coping with them.

Industrial Wages.

Reference has been made to the continual demands during the year for increases in wages. The outstanding awards are: (1) the 12½ per cent. increase in the engineering trades; (2) the 1s. 6d. per shift increase granted by the Coal Controller; (3) the recent advance to railway workers; (4) the extension of awards Orders; and (5) the women's wages Orders. It is of interest to examine these important awards in some little detail.

(1) The 12½ per cent. increase under this agreement was granted to all skilled engineers and iron founders employed on munitions work, to take effect at the first full pay day from October 12th. Munitions work is defined by various Orders under the Munitions of War Acts, and the 12½ per cent. is a bonus on earnings to time workers paid at or above the district time rate for turners and fitters.

(2) The Coal Controller's award is a war wage of 1s. 6d. a day to workpeople, including apprentices and females of 16 years of age and over, and of 9d. a day to those under 16. This increase took effect from the 17th September.

(3) The advance to railway workers was made under an agreement between the Railway Executive Committee and the men, sanctioned by the Board of Trade and put into operation on the 5th November. The agreement includes all railway workers engaged in the manipulation of traffic, and the increases are at the rate of 6s. a week for men, 3s. for women and boys under 18, and 1s. 6d. for girls under 18. Early this year (1917) the railway workers were awarded 5s. a week war bonus, which was afterwards changed to a permanent advance. Before this period war-time increases were 10s. a week. The net advance this year is therefore 11s. a week for men over 18, and the total advance from the beginning of the war period amounts to 21s.

(4) The power taken by the Ministry under Section 5 of the Act of 1917 to extend awards by Order has done much to remove a fruitful source of irritation. All workpeople in munition industries are now sure of receiving, whether they are fully organised or not, the advances awarded in this trade.

(5) The unprecedented improvement in the wages and conditions of employment of women which has been effected by the Ministry of Munitions during the war represents a great industrial achievement. It may be confidently affirmed that the status of women in the munitions industries has thereby been established on a plane with which this, or any country, may be well satisfied and from which retrogression in the future will be impossible.

The principal authority dealing with the advances of wages to men engaged in munitions work is the Committee on Production, who have, during the year, made many important awards in the engineering and foundry trades, shipbuilding and ship-repairing trades and in other trades closely allied to the engineering trade, bringing the total advances over pre-war wages to 20s., based upon the increase in cost of living. The Committee have also dealt with a number of the principal local authorities, the advances given being 9s. a week in April. In September this was increased to 12s., and awards have just been issued which will increase the amount to 16s. as from the 1st January, 1918. This last amount represents the total increase which has been given over pre-war rates of wages.

With a view to co-ordinating the action of Government Departments in matters connected with industrial wages and disputes by laying down general principles for their guidance and settling questions of policy affecting more than one Department, the War Cabinet appointed a Committee, known as the War Cabinet Labour Committee, under the chairmanship of the Rt. Hon. G. N. Barnes, M.P., but the work of this Committee has now been taken over by the Ministry of Labour.

Agricultural Wages Boards.

An important step has been taken during the year in extending the principle of Wages Boards to Agriculture. The Reconstruction Sub-Committee on Agricultural Policy drew attention in their Report to the need in many parts of the country for a readjustment of the wages system in regard to agricultural labourers, and suggested that a minimum wage should be adopted. These recommendations were accepted by the Government and embodied in the Corn Production Act, which provided for the setting up of Agricultural Wages Boards in England and Wales, Scotland and Ireland, with District Committees—the chief duties of the Committees being to recommend to the Central Board the rate of wages suitable for their areas and, generally, to deal with all local questions.

The method of procedure in setting up the Central Board and District Committees is different in each of the three countries, but the fundamental principle underlying their constitution is the same, namely, that both employers and employed should be

equally represented by their own nominees and that there should be in addition independent members nominated by the respective Boards of Agriculture.

The English Central Board has already been constituted and has commenced its sittings. It has determined the areas and number of the District Committees and also the number of members, both representative and appointed for each Committee. All the powers which the Board of Agriculture could confer upon the Wages Board have been duly delegated by Regulations, and an enquiry is being made throughout the country into the wages and conditions of agricultural employment.

In Scotland the District Committees are being formed first, the appointments being left to the persons interested in each district. Several of these Committees have been constituted, and all Committees must be complete by the 15th January. From these District Committees members will be chosen to act on the Central Board under a Chairman who has already been appointed by the Board of Agriculture.

In Ireland the method which is being followed is very similar to that of England. The Central Board has met several times and, pending the formation of the District Committees, has proceeded to fix rates of wages for Ireland.

A certain amount of time must necessarily elapse before the whole machinery of the Wages Board is set in motion, but meantime the agricultural labourer is receiving the benefit of the 25s. minimum wage which dates from the passing of the Corn Production Act in August, 1917.

Hours of Labour.

The problem of hours of labour, though scarcely less important than that of wages, has naturally been harder to solve. A time when the need for increasing output is pressing is not the most favourable for experiments in this matter. None the less the importance of avoiding overwork has been recognised and acted upon by the Home Office from the beginning in its administration of the Factory Acts, and its efforts have been reinforced by the Health of Munition Workers' Committee in their series of White Papers dealing with Sunday Labour, Hours of Work, Industrial Fatigue, &c. Experiments made in the National Factories on the Tyne and Tees having given good results, it was decided in April last that Sunday work which had already been greatly reduced in the case of women ought as far as possible to cease in most of the controlled establishments, and a recommendation to that effect was circulated. The proportion of men employed on Sunday work was reduced between August, 1914, and December, 1917, from 68 per cent. to 26 per cent., and of women from 33 per cent. to 6 per cent. The average number of hours overtime worked weekly per head declined between October, 1916, and July, 1917, from 11·09 to 10·76 in the case of men. and from 7·33 to 6·76 per cent. in the case of women.

Important developments have taken place during the year in connection with industrial welfare organisation and are referred to in Chapter XV.

The Employment Exchanges.—Finally, in the transfer of the Employment Exchanges to the Ministry of Labour a notable step has been taken. In order that the administration of its Exchanges might be as efficient as possible and in sympathy with the needs and demands of employers and workpeople alike, the Minister of Labour decided early in 1917 to establish a system of Central and Local Advisory Committees to assist the Employment Department in connection with the work of the Exchanges. On both Central and Local Committees employers and employees are fully represented. Already, as a result of this important step, there has been a noticeably favourable change in the attitude of organised labour to the Exchanges.

CHAPTER XI.

TRANSPORT.

Regarding the question of transportation as a problem of the first magnitude in its bearing on the war and on the needs of the civil population, the Government has directed to every aspect of the question the most careful and continuous consideration. Broadly, the problem can be divided into :—

1. Oversea transport, embracing shipping and shipbuilding ;
2. Ports, linking up oversea transport with inland transport ;
3. Inland transport, including railways and canals.

To this country, which imports one-half of its food and a large proportion of its essential raw materials, the question of oversea transport forms by far the most important, as it is the most complex and difficult part of the problem.

A first step towards securing the best results was clearly to relieve shipping of all unnecessary work. For this a policy of restriction of imports to prevent the importation of everything not absolutely essential was taken in hand, thereby reducing the demands on shipping by millions of tons. Side by side with this lay the question of how to secure the most effective and economical use of the shipping available, and how to develop our shipbuilding industry so as to compensate for the losses of the war and maintain by new construction the tonnage of our mercantile fleet.

Closely allied to shipping and forming an important factor in its utilisation is the working of the ports and the rapidity with which cargoes are handled both in discharging and loading.

The last section of the transport problem, the railway and canal system, forms the connecting link as much between importer and consumer as between producer and consumer. Any break in its regular and efficient working reacts on the ports, and through the ports on shipping. But important as this is, the handling of merchandise for import or export represents a relatively small proportion of the railway work of the country which, irrespective of the great passenger service, has to provide transport for the coal and other home-produced raw materials and for the food and manufactures on which every industry and every member of the nation is dependent.

(1) Shipping.

At the outbreak of war, more than half the sea-going vessels of the world were British. Our ocean merchant fleet comprised

nearly 4,000 steamships of 17,000,000 tons gross, and was five times as great as that of any other nation.

The primary work of this British-owned tonnage in peace was to carry on and develop the trade of the Empire, but no more than one-fourth or one-fifth of that tonnage was employed in the carriage of over-sea trade within the Empire itself. Liners of high speed running on regular routes and at defined intervals provided connecting links for passengers and for commerce not only between Great Britain and the Dominions, but also with every important market and centre of population in foreign countries. Our tramp tonnage worked our export trade in coal, returning with grain, timber, ores and merchant cargo of every description. But beyond the great passenger and merchandise traffic which centralised on the United Kingdom a large share of the over-sea freight of all countries was handled by British ships. British steamers were engaged in trading between North America and South America, between America and Africa, between these two continents and the East, in conveying food and raw materials for Northern and Mediterranean Europe, in supplying the coaling stations of the world and in trading in all seas.

In July, 1914, our mercantile tonnage covered every need of the Empire and provided in addition a huge reserve. As the war extended in duration and spread over a widening area this reserve had to be gradually called in. All our Allies looked to British shipping to supplement their own in supplying their armies and maintaining their peoples. In France and Belgium, the Dardanelles, Egypt, Salonica, Mesopotamia and Africa the armies demanded hundreds of our merchant ships to furnish transport for men, food, munitions and equipment. Hundreds more went to serve the Navy with coal and supplies and to be converted into armed auxiliaries.

On the other hand, the number of our ships was slowly diminishing. Losses from enemy warships, mines and submarines were only partially compensated for by captured vessels, purchases and new construction. By the end of 1916, our ocean tonnage was not greatly less than at the opening of the war, and of the shipping available after satisfying the war requirements of ourselves and our Allies less than half was left to provide for civil needs.

The issues depending on our shipping were of such importance that the War Cabinet, as one of its first acts, decided on the formation of a separate Ministry charged with the sole duty of securing the most effective utilisation of our mercantile fleet in the interest of the whole Allied effort, and, in December, 1916, the Ministry of Shipping was constituted with Sir Joseph Maclay at its head.

The problem presented to the Ministry upon its formation was recognised to be one of grave importance. If shipping failed we could neither continue in the war nor maintain our population. The submarine attack had already grown in intensity in the last

quarter of 1916, and the Ministry had only been in existence a few weeks when Germany declared her intention to destroy at sight and without warning every vessel of whatever nationality arriving in or approaching the United Kingdom.

The outstanding effort of the Ministry of Shipping has been so to organise and re-distribute the nation's ships that, in conjunction with the policy decided on for the restriction of import of non-essentials, ample supplies should be maintained for civilian and war needs. With such good results has this been done that in the summer of 1917 we actually imported more grain and flour into the country than in the summer of 1916. The quantity of goods brought into the country fell off considerably at the end of 1916 and the beginning of 1917, but during the summer, owing to the reorganisation of shipping, there was an excellent recovery. For example, in each of the months of July and August the cargo imported was scarcely below the monthly average of 1916, and exceeded by over 500,000 tons the quantity of cargo imported in December, 1916. In June and July we imported nearly 500,000 tons more of grain and flour than in the same two months of 1916.

These striking effects have only been accomplished by a drastic treatment of the problem. At the end of 1916 the proportion of tonnage which had been requisitioned by the State was less than one half of the whole. A large proportion of tramp shipping had been requisitioned, but by far the greater part of the liners remained un requisitioned and was licensed to continue to trade in the accustomed routes. In the course of a few months practically the whole of the British ocean-going mercantile marine has been brought under requisition at Blue-book rates. All tramps have now been requisitioned save in certain special cases, and this means that the increase in the number of tramps on full requisition is about 500. The whole of the ocean-going liner service has also been requisitioned and this affects about 800 vessels.

This practically complete requisitioning has proved of immense service. First and foremost, by enabling the withdrawal of ships from the longer trades and their transfer to the shorter, it has secured for the nation an enormous addition to its cargoes even while its shipping has fallen in quantity. Quick instead of slow returns have greatly increased the carrying capacity of the vessels so diverted by the saving in time occupied on each voyage.

As the months have advanced the withdrawal of vessels from far trades has been extended. Considerably more than half the tonnage in the Far Eastern United Kingdom Trade has been withdrawn and diverted in this way, in addition to more than one-third of the tonnage in the Indian Trade. Similar action has been taken in the case of the Australasian and other trades. The quantity of imports that can be brought in on the North Atlantic route is three times the quantity that could be carried by the same tonnage in the Australian Trade, and the action thus taken has enabled the concentration of shipping for the purpose

of taking advantage of the exporting capacity of the United States and Canada, and at the same time obtaining the benefit in the form of additional imports of the increased number of voyages.

The strongest efforts have been made to avoid any waste of carrying power, and to ensure that every vessel bringing imports should be completely loaded. Amongst other changes has been the utilisation of the ballast tanks and bottom decks of cargo steamers to supplement the work of the tank steamers in the transport of mineral oils, and hundreds of thousands of tons have been imported in this way.

In the six months immediately preceding the war each one hundred tons net register of shipping that entered our ports brought in on an average 106 tons of imports. In the first year of the war a considerable advance on this figure was secured, and, as a result of the continuous attention devoted to the matter throughout 1917, the percentage of cargo to net entrances has been raised still further, so that during the last months of the year for every 100 net tons of shipping entered we have received over 150 tons of imports.

As a further result of the policy of general requisitioning, the British consumer has been given the advantage resulting from Blue-Book rates of freight. In cases where the Government control supplies, as with wheat, the consumer is given the advantage directly. In cases where the Government have not control of supplies and where, if freights based on Blue-Book rates were charged to the importer, either he or the foreign supplier might intercept the advantage, the Ministry charges the market rate of freight and the difference between the market rate and the Blue-Book rate paid by the State to the shipowner goes to the Treasury.

There is no question that, prior to the adoption of a system of practically complete requisitioning, profits made by shipowners were so great as to cause grave disquiet amongst the public. The shortage of shipping caused by the war had rushed freights up to figures enormously in excess of anything paid in the past. These freights materially added to the cost of food and other essential materials, and strong criticism was directed in the Press and on public platforms against such earnings going into private shipowners' pockets.

As the control and practical direction of British ships became more and more complete, it was of increasing importance to adjust to the vital needs of the nation the various demands for tonnage arising in the different Departments. A Tonnage Priority Committee was therefore set up upon which each Department of State concerned with the nation's supplies is represented. The Committee having before it the demands for tonnage, estimates the amount of cargo it is possible to carry, and is enabled so to co-ordinate the various requirements as to secure the best possible distribution of carrying capacity. So far, the task has been accomplished in such a way as to ensure that no section of the national need has gone unsatisfied.

From the outbreak of war Great Britain has rendered invaluable assistance in tonnage to her Allies. In the case of France and Italy, shipping so provided has been partly requisitioned tonnage placed at the disposal of the Allied Governments and partly tonnage chartered to Allied interests. In the case of Russia practically the whole of the tonnage has been requisitioned and managed in this country on behalf of the Russian Government. The measure of the assistance rendered to France and Italy is afforded by the fact that on the 31st December the number of British ships in the service of France was 500, with a total gross tonnage of about 1,000,000 tons, and in that of Italy 128, with a total gross tonnage of slightly over 500,000 tons. In addition, tonnage varying in amount has been placed from time to time at the service of Belgium and Portugal, and, in more recent months, the United States of America.

With the more complete requisitioning of tonnage the work in connection with the various branches of shipping covering not only the feeding and maintenance of the population of the United Kingdom and our various Expeditionary Forces, but such all important services as the supply of munitions, pyrites, flax, metals and fodder for the Allies has grown to enormous dimensions. The collier fleet responsible for the provision of coal to the Navy, dockyards, the British army in the field and army depots, troop transports, &c., and also the coal imports of France and Italy embraces 584 ships with a carrying capacity of 2,340,000 tons.

The coasting trade has been brought under a special measure of control and a separate branch of the Ministry of Shipping formed to deal with it. This branch reviews the entire coasting trade and watches the movements of all steamers of over 250 tons deadweight employed in the United Kingdom and France as far south as Bordeaux. This means the control or oversight of 1,200 vessels. The value to the nation of these coasting vessels is being greatly increased by the re-direction of ships where necessary to serve such all important services, as *e.g.*, the carriage of the important food supplies of Ireland, estimated in 1917 to be 1,000,000 tons in excess of 1916.

The difficult problem of neutral shipping which has been assailed by the enemy in common with our own tonnage has been energetically dealt with. The arrangements made or in contemplation are too complicated or transitory to lend themselves to summary treatment, but it may be said that no small measure of success has been attained. In relation to imports into the United Kingdom, the falling off in neutral entrances has been considerable since 1916, but has been well maintained since the end of January although it has been our deliberate policy to leave the neutral tonnage offering almost wholly to our Allies. Of even greater value has been the utilisation of these ships in relation to the vital problem of supplying coal to France. The clearances of neutral vessels from the United Kingdom to France in September were 30 per cent. more than the average for the first four months of 1917.

The conditions of labour of seafaring men to whom the nation owes such a great debt of gratitude in this war have received special attention. A Mercantile Marine Conciliation Committee has been formed to review continuously the conditions of labour of the officers and men of our merchant ships, and a great deal of important work has been accomplished in this connection. A National Wage Board has been set up to establish a national standard rate of wages for seamen, and a standard rate of £11 10s. per month for able seamen, with rates for other ranks in proportion, has been decided upon. This represents a substantial advance upon the highest rate hitherto paid.

To sum up, the policy adopted and the energies devoted to this vitally important question have been directed to centralising control, concentrating shipping on the shortest and most essential routes, and securing the fullest utilisation of all cargo space. By these means we have, in a year of increased difficulty, been enabled to meet the largely increased requirements of our fighting forces, to continue rendering assistance to our Allies and to maintain the nation's supplies for military and civil needs, whilst preventing the exploitation of the people by excessive freights.

(2) Shipbuilding.

On the creation in December, 1916, of a special Department of Shipping, with a Shipping Controller at its head, merchant shipbuilding, as part of the national shipping activities, was placed under his direction. In May, 1917, in order better to co-ordinate the claims of the Admiralty and of the mercantile marine on the shipbuilding capacity of the country, and with a special view to the construction of the largest possible amount of mercantile tonnage, the responsibility was transferred to a new Department under Sir Eric Geddes with the title of Controller of the Navy. On Sir Eric Geddes becoming First Lord of the Admiralty, Sir Alan Anderson was appointed Controller.

The Department of the Controller of the Navy is divided into three branches :—

- (a) That of the Deputy Controller of Dockyards and Shipbuilding, which provides ships required for the Navy.
- (b) That of the Deputy Controller of Armament Production, which provides guns, torpedoes, mines, explosives and generally the armament required for the Navy, and
- (c) That of the Deputy Controller of Auxiliary Shipbuilding, which provides all mercantile tonnage, together with such auxiliary and miscellaneous craft as mine-sweepers, trawlers, oilers and generally the vessels required for commerce and for other uses not included in the Department of the Deputy Controller of Dockyards and Shipbuilding.

It is with the work of the auxiliary shipbuilding department that we are for the moment concerned. How imperative was the necessity of bringing under one control the competing activities now represented by the Departments of Dockyards and Shipbuilding and that of Auxiliary Shipbuilding is shown by the following figures :—

Merchant Vessels from British Yards.

Period.				Launched.
				Gross register tons.
Year	1913	...	...	1,919,000
,,	1914	...	...	1,674,000
,,	1915	...	...	651,000
,,	1916	...	...	542,000
,,	1917	...	...	1,163,000

This industrial shipbuilding which has for many years played so leading a part in our national commerce was perhaps better able than any other industry to sustain the very serious reduction in labour and material implied by these figures, but the transference of effort from a great and highly organised industry to novel directions inevitably results in dislocation of various kinds, and the machine which has been so rudely stopped cannot be set in motion at short notice.

These were the difficulties that confronted the Shipping Controller and afterward the Navy Controller, but the Navy Controller, by the fact that he was a member of the Board of Admiralty and responsible for all shipbuilding, naval as well as commercial, was safe from some of the principal difficulties which had previously beset the path of the Shipping Controller.

It was not only in steel and labour that the paramount claims of the Navy delayed the construction of merchant shipping in the period anterior to the creation of a Department under unified control, but in all the many fittings that go to make a ship there was a possibility of delay to small but essential parts.

Again, the artificial state of war made it necessary to institute an effective control over shipyards. At a time when all steel and labour stand at a rapidly increasing premium—when, in fact, the demands for both are far more than equal to the supply—it is impossible to allow supplies of either to be directed to private and uncontrolled work. If supplies are granted, it must be on the definite recommendation of a Government Department which is in a position to ensure that the material and labour allotted to a private shipyard are to be put to the best use, and that the management of the yard is directed solely and energetically to this end.

The first decision taken by the Controller of the Navy was to separate as far as possible naval from mercantile work. The two classes of shipbuilding are not harmonious. Quite apart from any question of priority between the two, the more exact

specifications required for naval ships present difficult problems to many builders who are well able to fulfil the commercial specifications. Put in another way, the productive capacity of the country suffers if cargo boat yards are taken for the production of more specialised work.

Acting on this decision the Controller devoted a number of yards wholly or partially to warship construction, the other yards being set apart for mercantile and other shipbuilding. The separation of work is not yet complete, for many naval vessels are still under construction in the mercantile yards and *vice versa*. This will gradually be corrected as ships are completed, but already some of the large warship yards are able to realise considerable economies by standardising, for example, their construction of destroyers.

It is also possible for the shipbuilder engaged in the construction of cargo boats to rely with some assurance on being permitted to continue his work without being called upon to divert men and material to a form of construction for which his yard was not established and may be ill-adapted to maintain steady work on the ships constructing and to avoid spasms of activity first in one direction and then in another. The grouping under one head of the several branches of shipbuilding has made it possible for the Controller to bring to the notice of the Board of Admiralty and Shipping Controller the effect upon production of decisions they may propose to make, and a special staff has been formed whose sole duty is to study shipbuilding from the point of view of output and to consider and bring forward any suggestion which may facilitate progress either in economy of specification or in maintaining a regular course of work. In a number of directions it has been found that work at the dockyards and their demand on the labour supply can be substantially eased by the provision of more machinery. Proposals to this end, affecting all the royal dockyards, have been carried into effect.

In January, 1917, the Standard Shipbuilding Programme was inaugurated. It has for many years been the practice of yards specialising in tramp steamers to develop a standard and to turn out one boat after another on the same design. The differences of design between different builders and different districts have been small; but each builder believes his own to be the best, and, in carrying out the Government Programme, care is taken to meet the personal and local susceptibilities of builders so far as this is consistent with ease and quickness of production and with a general standard. The standardisation of the machinery is more easily attainable than the standardisation of hulls, and the whole shipbuilding capacity of the yards under the Controller will eventually be turning out tramp steamers for which the engines and the auxiliary machinery will be uniform.

While the progress to uniformity in production was inaugurated by the Shipping Controller and is already in full swing, it will be months before the yards are cleared of individual designs.

When the Controller was appointed there were vessels which had been already under construction for four years, and in any forecast of production two distinct problems must be kept in view :—

- (a) The miscellaneous vessels now under construction and in many cases nearing completion are being finished off as rapidly as may be. No general estimate can be made of the time required for this work, but in each case the promise of delivery given by the builder is subjected to scrutiny.
- (b) The capacity of the yards once they are cleared of miscellaneous designs is judged and expressed in terms of standard ships. In this estimate a nearer approach to accuracy may be expected.

Just as every effort is being made to simplify the types of cargo vessels, so the problem of enlarging the national capacity for construction is in process of solution. In the case of private yards, licences to extend their capacity by the making of new slips and the addition of new machinery have been in many cases granted, while three National yards are in process of establishment. Of these, two are situated on the Wye at Chepstow and Beachley, and the third on the Bristol Channel at Portbury. The Wye and Bristol Channel district is of course eminently convenient for the carriage of coal and steel.

The most serious difficulty in any great increase of shipbuilding centres round the labour supply. The sudden enlargement of an existing shipbuilding centre entails the provision not merely of slips and machinery. The town itself and the railway facilities leading to it may also need to be enlarged. In the selection of sites for the National Yards and in the decision that the establishment of National Yards is preferable to unlimited extension of activity in existing centres, this point has been kept prominently in mind. Once the period of construction is complete the labour difficulty will swing from the recruiting of unskilled to the recruiting of skilled labour, and at this point also there are many advantages in keeping the new development distinct from existing shipping centres. The experience of the Department of Inland Water Transport, at Richborough, proves that it is possible to train unskilled labour in almost all the necessary work of building ships of simple design. Four schools of rivetting and various branches of ship construction have been started. But the success of these special efforts depends in large degree on the acquiescence of organised labour in the measures now being adopted to teach unskilled men and women and to employ them in shipbuilding.

With regard to the dilution of labour, the main difficulty was, up till September, the shortage in the supply of material. Managers and foremen, as well as the workmen, not unnaturally resented attempts to introduce unskilled workers as long as they feared that the enlistment of skilled men or the reduction of the earning capacity of the staff would be the immediate result.

Now, however, the supply of steel coming forward is adequate to employ fully all the skilled men retained in the yards and a largely increased number of unskilled men and women added to them. The workers need have no fear that the completion of a ship will leave them without employment.

While it is possible to multiply skilled workers by education or to recall them from other national work, the supply of steel forms a definite measure of the production of ships in this country, and steel again is definitely limited by the home production or the import of suitable ore. Following decisions of the War Cabinet, the production of steel plates has been pressed forward and all plate rolling mills are being fed to their utmost capacity, whilst new mills now in process of construction will still further increase the supplies.

Throughout 1917 the completion of merchant vessels has been unbrokenly progressive, the output of 1,163,500 gross register tons from British yards being more than double that of the previous year. This output is no gauge to the scale of production that will be attained in the near future, when the developments in shipbuilding yards and in the provision of material that have been projected and pressed forward in 1917 show their full results.

(3) Ports.

The carrying power of ships depends on the number of voyages made and the importance of port work in its bearing on the economy of shipping can be gauged by the fact that ships spend as much time in harbour as at sea. On the outbreak of war, one of the first effects was the dislocation of all the regular movements of shipping, both foreign-going and coastwise. This, in conjunction with the sudden throwing on to our ports of large and imperative demands from War Office and Admiralty, created such congestion at the leading docks of the country that ships both in loading and discharging were delayed in numerous instances very seriously, beyond their normal time. As the war progressed and military and naval demands expanded, delays at the ports grew steadily worse, until, in November, 1915, Mr. Asquith created a Committee under the title of the "Port and Transit Executive Committee." This Committee was a central authority located in London and was charged with the duties of enquiring into difficulties and congestion at harbours, ports and docks in the United Kingdom, of regulating the work and traffic thereat, and of co-ordinating the requirements of all interests concerned so as to avoid, as far as possible, interference with the normal flow of trade.

The Port and Transit Executive Committee working with and through the local port authorities, succeeded in bringing about some amelioration of the troubles that existed when they were appointed at the end of 1915. But with the advancing months of 1916, the growing claims of the war caused difficulties once more

to accumulate, so that by the end of that year the congestion and delay at the ports had again reached a critical stage with the old troubles intensified and a series of new problems created. With the first months of 1917 changes in the usual oversea routes resulting from the diversion of ships from long-distance voyages to the shorter cross-Atlantic passage threw on to particular ports an unprecedented proportion of tonnage. To this were added the difficulties caused by fluctuations, more or less violent, in the flow of traffic, a period of slackness being succeeded by a rush of ships and imports which strained, if it did not overtax, the discharging capacity of the port affected. Accommodation in the docks, plant and machinery for discharging and loading, warehouse storage facilities, sidings and junction lines, railway rolling stock, and most important of all, the number of men available for effectively dealing with imports and exports were all from time to time found insufficient to ensure that ships should be turned round with the least delay and that traffic between the ports and the centres of consumption should flow unimpeded.

Shortly after the creation of the Ministry of Shipping, arrangements were made to bring the work of the Port and Transit Executive Committee into nearer relation with that of the Ministry. The Committee is now housed with the Ministry and works in the closest association with the Director of Ports appointed by the Ministry.

The first problem demanding solution was the provision of more men to meet the new conditions. In February, 1916, the Government had authorised the formation of "Transport Workers Battalions," consisting of men belonging to the Home Army but lent temporarily from military training to dock work as necessity arose. These were selected from men who, before joining up, had been engaged in occupations which gave them an experience and training that would enable them to take up and effectively perform the work connected with loading, discharging and handling traffic at the docks. The essential features of the scheme were that the battalions were to be mobile, so that they could be rapidly transferred to any point where the domestic labour supply was insufficient to deal with immediate demands on it and that the men of the battalions should be used only to supplement and never to supplant the civilian labour in the Port. Whilst working in the Ports the men receive full civilian rates of pay. To secure observance of these conditions Local Committees were established at each of the Ports, on which were represented the War Office, and Admiralty, the Port Authority and Labour. At the end of November, 1916, 1,345 men had been enrolled, and even this small number had proved that the policy was sound and that the battalions could give valuable aid in hastening the discharge of cargoes and minimising delays to shipping. When the new Government took office, steps were taken to raise the strength of the battalions. Within a month the number had been increased to 5,000, and shortly

afterwards it was raised to the present figure of between 10,000 and 11,000 men.

The value of the services rendered by these battalions can be appreciated by the following figures :—

1917.					No. of days' work done.
1st quarter ... ..	...	...	...	...	276,805
2nd quarter ... ..	...	...	...	...	403,105
3rd quarter ... ..	...	...	...	...	509,211
4th quarter ... ..	...	...	...	...	600,211

The work done by the men of the battalions has again and again prevented serious congestion in the ports, and has raised the rate of loading and discharging of ships.

Special regard has been paid to developing the use of mechanical appliances and to the question of storage, and at points where it was found that there were insufficient facilities properly to deal with the traffic, further space was allocated to storage and new warehouses for grain and other material erected. The additions to storage accommodation already provided amounts to upwards of 600,000 tons. To obtain the best results from existing quays, sheds and warehouses at the Ports, regulations have been enforced on merchants to prevent their monopolising discharging facilities and storage capacity for longer than is absolutely necessary.

Similar action has been taken in relation to railway wagons. Increased demurrage charges are imposed on merchants delaying them, and a careful watch is kept on all truck movements, with a view to securing their discharge and return to the railways at the first possible moment. The pooling of all railway-owned open goods wagons and the use of privately-owned trucks on their return journeys from the Ports has further assisted, increasing the number available for loading and decreasing the demands on sidings and dock lines previously used to accommodate wagons which had to be returned empty to the owning company.

At the ports where risk of congestion exists, a careful scrutiny has been made of the siding accommodation. New sidings and additional junction lines have been put down and reorganised arrangements put into operation for the more rapid manipulation of the traffic.

In view of the unusual and continually changing conditions of the year it would have been a creditable performance to have maintained the rate at which traffic flowed at British ports, but the measures taken have not only prevented further delays but have brought about a considerable improvement in the despatch of vessels. As an instance of this, ore cargoes which in January last were unloaded at the average rate of 500 tons per day, have now moved up to an average of 1,000 tons per day. So great a

saving has not been obtained in all tonnage, but every day cut out of the turning-round time and given to the sea-going time has in its total effect meant a very material addition to the carrying power of our merchant fleet.

(4) Railways.

To understand properly the work of the railways it is necessary to place under short review the position in December, 1916, and the several movements which since August, 1914, had led up to that state of affairs.

Of the 700,000 men employed in railway work in the country, over 130,000 had been taken for military or naval work. These had, so far as numbers were concerned, been partially replaced, but, in lieu of experienced men in the best period of life, the substitutes had to be either women or men physically ineligible for military service, who, with all their energy and willingness to work, necessarily came to the railways without experience in the duties they had to perform.

With regard to permanent way, stations and other constructional portions of our railway system, labour and material devoted to maintenance and renewals had since the commencement of the war been strictly limited to carrying out such work as was essential to ensuring the safe running of passenger and goods traffic. Thus, in 1916, the quantity of steel utilised for this purpose was 60,000 tons instead of the usual annual consumption of 200,000 tons in pre-war times. Rolling stock had suffered in the same way, the locomotive and engineering shops of the various companies having from the earliest days of the war been largely diverted to the manufacture of shells and other munitions of war. A great number of expert mechanics had been taken for other work connected with the war, whilst those who remained in the shops of the railway companies, instead of being free to carry on their regular work of maintaining and repairing locomotives, carriages and waggons, had been very largely engaged in the production of munitions or in the construction of rolling stock to be sent to the various fronts on which our armies were fighting.

As a result, by the end of the year, not only was there a grave shortage resulting from practical cessation of replacements over a period of two years, but, in addition, thousands of locomotives and waggons were out of commission awaiting repair. But whilst working capacity was thus reduced, with a personnel smaller in number and—as regards the newcomers—less experienced and efficient, with repairs and renewals of plant, machinery and rolling stock more than two years in arrears there was not only no slacking of the calls on the railways but they were month by month advancing with the growth of our armies and the increase in the demands of the war.

In spite of the decrease in imports, the volume of goods traffic on the railways in 1917 considerably exceeded that of any

previous period. A number of the imports cut off were replaced by increased home production, notably foodstuffs, timber and iron ore. The United Kingdom has throughout the war been the point of origin or the *entrepôt* of practically all supplies for our own Armies and a good proportion of the supplies for the armies of the Allies. All of this has needed conveyance over our railways and handling at our railway termini, and, gigantic as these supplies were in the previous year, they further increased during 1917 by millions of tons. Goods carried by the canals had since 1914 fallen by 5,000,000 tons per annum, all of which had gone to swell the traffic on the railways. The coastal trade of the country prior to the war found continuous employment for 4,000 steamers and sailing vessels. The huge tonnage of raw material and other merchandise previously carried by this fleet has now mainly to depend on our railways for conveyance. The intensifying of the submarine campaign at the end of 1916 and throughout 1917, in conjunction with the withdrawal of vessels from long voyages, and their concentration on Atlantic routes, made another addition to the difficulties of the railways by throwing on to the west coast ports a greater quantity of imported goods than their equipment and facilities were designed for.

Energetic action was taken to solve these difficulties. To meet the reductions in engine power, a careful analysis was made of the passenger train services of each railway. Trains running over parallel routes at the same hours were cut out, and on main routes and branch lines every train that could be dispensed with without seriously inconveniencing the public was taken off. As a result, the number of passenger trains run was reduced by nearly one-third, with a proportionate release of engine power for more necessary work in connection with the carriage of essential goods traffic. To obtain more effective use of the wagon capacity of the country, a pooling of the open goods wagons of all the railway companies was brought into operation. By this system wagons previously returned empty were reloaded at or close to the point of discharge. Thus the number of wagons running empty was greatly reduced, the train mileage correspondingly cut down, and the rolling stock available for the conveyance of goods very largely increased. To check the fall in canal traffic and its transference to the railways, the principal canals of the Kingdom were placed under Government control and active steps taken to restore them to the pre-war level as carriers.

Particular attention was given to coal, which in normal times constituted about one-third of the railway traffic of the Kingdom. In conjunction with the Coal Controller, a careful enquiry was made into the whole coal movement of the country and the geographical position of each coalfield in relation to the markets it supplied. It was found that quantities of coal were being sent to consuming centres which could be equally well supplied from coalfields less distant, demanding a shorter, and, in many instances a much shorter, railway journey. A scheme was drafted which provided that each area in the country was precluded from obtaining its coal supply except from the coalfield

nearest it. The carrying out of this arrangement is estimated to have effected a saving of about 700,000,000 ton miles per annum, with a resultant reduction in the number of locomotives and trucks absorbed in carrying the coal traffic of the country and a corresponding relief to the pressure on the railways.

These several schemes of reorganisation of passenger service, of rolling stock and of the general operations have been supported by the unremitting efforts of every section of railway employees to meet all demands and ensure that the railways of the country should do everything possible to assist in the nation's efforts. To do so has demanded work under continuous pressure, often with long overtime, but in 1917, as throughout the war, this has been cheerfully endured. As a result, we have succeeded in carrying a greater traffic than at any previous period, and this has been done with a reduced number of locomotives, goods and mineral wagons, and over railways which have suffered from three years of insufficient maintenance and renewal.

Not only have the British railways, weighted down under these conditions, succeeded in carrying on all the railway traffic of the war and of the civil population, but they have been able to render immense help in personnel, permanent way and rolling stock to the armies both of ourselves and of our Allies. From the railway companies' own stock 18,000 wagons have been sent to France and other countries, whilst in the railway shops 2,000 twenty-ton covered vans have been constructed for use in France. We have supplied rails and sleepers for over 200 miles of permanent way and have sent abroad nearly 600 locomotives to France, Egypt, Salonica, Mesopotamia and Serbia in addition to constructing 20 complete trains for ambulance work on the various fronts. Side by side with this, the railway shops of the country have, during 1917, manufactured munitions to the value of five and a half million sterling, this being more than was done in the whole period from the outbreak of war until the end of 1916. Most important of all, more than 33,000 railwaymen have, since the 1st January, 1917, been transferred to military service and are either in the fighting forces or giving valuable service in the carrying on of military transport work.

Whilst the railways of England, Scotland and Wales had been taken over by the Government immediately on the outbreak of war, the Irish railways had been left in the hands of the owning companies. The continuous rise in the cost of living had affected the Irish railwaymen equally with those of Great Britain, but, whereas in the latter case the Government granted bonuses to assist the men in meeting the higher living costs, in the case of the Irish railways the companies possessed no revenue which could be drawn on for the purpose. Under these conditions the Government decided to take over the Irish railways as from the 1st January, 1917, and from that date, in respect of control, of financial arrangements with the shareholders, and of increased wages to the men, the same conditions have applied to the whole of the railways of the United Kingdom.

Throughout the year the relations between the Government and all sections of railway employees have been uniformly satisfactory. With the intention of claiming higher wages, an eight-hour day, and other changes in the then existing conditions of service, the Railwaymen's Unions had, prior to the war, given notice to determine, as from the 30th November, 1914, the agreements which then obtained and which had been in operation since the Railway Strike of 1911. On the outbreak of war, the railwaymen decided that in the interests of the nation they would not press the new programme, and on the 1st of October, 1914, they agreed with the Railway Executive Committee :—

“ That notwithstanding the notice of determination which expires on November 30th, 1914, the scheme of conciliation settled at the Board of Trade Conference on December 11th, 1911, shall remain in force, and that the men's side of the Boards on each of the several railways, as at present constituted, shall continue to act, provided that either the Railway Companies, the National Union of Railwaymen, or the Associated Society of Locomotive Engineers and Firemen may give six weeks' notice to determine the agreement, and thereupon the parties hereto shall agree as to the arrangements to be adopted for the future. It was further agreed that all existing contracts and conditions of service shall remain in operation, and that no new agreements shall be made by the Companies either with Deputations or Conciliation Boards during this suspensory period.”

At the beginning of 1915, following the all-round rise in price of food and other necessities, a war bonus was agreed upon payable as from the 15th February, 1915, of 3*s.* per week for men earning less than 30*s.* a week and 2*s.* for those whose earnings exceeded that figure. In June, youths under 18 were granted 1*s.* 6*d.* a week bonus. In October, 1915, the bonus was increased to 5*s.* a week for all men and 2*s.* 6*d.* a week for youths. This arrangement stood until September, 1916, when the then existing bonuses were raised and women employees were brought into the scheme, the increased bonuses being :—

				<i>s.</i>	<i>d.</i>	
Men over 18 ...	...	...	...	10	0	a week.
„ under 18	...	...	...	5	0	„
Women over 18	...	...	...	3	0	„
„ under 18	...	...	...	1	6	„

and this scale was in operation when the present Government came into office.

In the spring of 1917 the continually advancing cost of living necessitated a reopening of the wage question, and it was agreed that the bonus should be raised to :—

				<i>s.</i>	<i>d.</i>	
Men over 18 ...	...	...	...	15	0	a week.
„ under 18	...	...	...	7	6	„
Women over 18	...	...	...	5	6	„
„ under 18	...	...	...	2	9	„

In August negotiations which had been opened on the applications of the Men's Unions resulted in an agreement that the additions to wages as "war bonuses" should be converted into "war wages" for the purpose of calculating overtime and payment for Sunday duty, and at the same time the additions to pre-war wages of women over 18 and youths under 18 working in the railway shops should be increased 2s. a week and of girls under 18 by 1s. a week. Following the advance of wages in other industries, the question had again to be considered in the last months of 1917, when further additions were made raising war wages above pre-war level by the following amounts:—

		Total increase per week.			
		Operating Departments		Railway shops	
		payable from		payable from	
		5th November, 1917.		1st December, 1917.	
		s.	d.	s.	d.
Men over 18	...	21	0	20	0
„ under 18	...	10	6	10	0
Women over 18	...	8	6	10	0
„ under 18..		4	3	5	0

Stationmasters and the clerical staff at stations shared equally with the employees in the operating departments and shops in all the advances. In the case of the salaried staff, up to December, 1917, no uniform scale applicable to all the companies had been adopted, but, as a general rule, war bonuses were granted to employees in the railway offices approximating in time and amount to the several additions made to weekly wages. In December, 1917, the matter was placed on a uniform basis by the granting to the men over 18 on the salaried staff of all railways of a war bonus of £54 12s. a year, where the annual salaries did not exceed £500. By the same notice, the bonus of women clerks over 18 and boy clerks under 18 was raised to 10s. 6d. a week, and of girl clerks under 18 to 5s. 3d. a week.

In a period of strain and difficulty the railways of the country and those responsible for their management and operation have risen to every call upon them. Whilst filling all the huge requirements of the war they have, in the frequency of passenger trains, their comfort and rapidity, and in the regularity and quickness in the carriage of goods provided for the civil population a service probably superior to that of any other country, allied, neutral or enemy.

Throughout the year the far-sighted policy of Mr. Asquith's Government of 1914 in taking over the railways has further justified itself. It has enabled a concentration of effort, equipment and material without which it would hardly have been possible to meet the complex and growing demands.

(5) Canals.

The total length of the important canals and inland waterways of England and Wales is about 2,500 miles. Of these, 1,025 miles are owned by railway companies and had consequently

been under Government control since August, 1914, when, in common with the railways and other railway-owned property, they were taken over by the country and placed under the direction of the Railway Executive Committee. The remaining 1,475 miles had, up to the early months of 1917, continued under private management.

With a view to their being made of greater service in the conveyance of traffic, so as to relieve the pressure on the railway system of the country, the Government in March, 1917, appointed a Canal Control Committee to take over the control of the more important privately managed canals and inland waterways.

The Committee now controls the undertakings of 24 separate companies in England and of 5 separate companies in Ireland.

				Length controlled.
England	...	...	...	1,202½ miles.
Ireland	...	...	...	304 ,,

The railway-owned canals remained under the direction of the Railway Executive Committee, so that through the two Committees some 2,227 miles out of the total of 2,500 miles of important canals in England and Wales are now controlled. The Canal Control Committee has appointed three sub-Committees to assist them in England. These sub-Committees have their headquarters at Leeds, Birmingham and London, and the controlled canals are divided under them. The canals in Ireland which have been taken over have also been placed under a sub-Committee formed in Dublin and charged with their management and the duty of increasing their usefulness.

The conditions prevailing at the time the Canal Control Committee was appointed have made it necessary for action to be taken in a number of directions covering labour, financial relations with the canal owners and canal carriers, maintenance and traffic.

Under the first head it was found that the principal Companies had lost a large proportion of their men, not only through enlistment and the operation of the Military Service Act, but through the attraction of better paid employment in other work. Many boats were lying idle for want of boatmen and crews, the number out of commission on the controlled canals amounting to 1,249. To put the wages question on a proper footing, it was decided to pay the men a similar bonus to that in operation on the railways. To secure additional men for the canals, steps were taken through the existing channels of employment, and an arrangement was come to under which men in the Transport Workers Battalions raised for dock work were made available for service on canals. To assist this, it was arranged to transfer to the Transport Workers Battalions men with experience as boatmen and in categories below Class A. The number of men with such experience was, however, limited, and it was decided to train men of these Battalions in the work of navigating boats. This scheme has only been in operation a few months, but already

a number of men have completed their course of training and are at work on the canals.

The financial arrangements between the Government and the canal companies have followed the lines adopted in the case of the railways, that is, a guarantee by the Government, subject to some unimportant exceptions, of the net revenue of 1913. Canals differ, however, from railways in one respect. On railways the owning companies are the sole carriers. On canals, whilst a few owning companies undertake the conveyance of traffic, the largest part of the tonnage is conveyed either by private firms known as canal carriers or by private individuals who convey their own traffic. The increased payments in the shape of wages, cost of craft, horses and appliances have brought about a position in which many of the carrying companies with fleets of boats, large staffs and warehouses have found their business unremunerative and have sought the assistance of the Control Committee to enable them to continue in the work of conveying traffic. Careful consideration has been given to the question, and arrangements have been made which place the matter on a reasonable basis and are encouraging the carrying companies to increase their efforts in the future.

The physical condition of many of the canals had since the beginning of the war deteriorated. Through the absence of sufficient labour, dredging had not been maintained and the waterways had silted up. These defects in the condition of the waterways added to the cost of conveyance because canal boats were not able to traverse the waterways with the same facility and ease as formerly. It has been neither advisable nor possible to embark on any scheme of improvement of canals involving large outlay, but on the more important canals a certain amount of dredging has been carried out, together with the repair of locks and other minor improvements. The canals are now being maintained in a better way than formerly, and assistance is thus given to enable carriers to convey their traffic as cheaply and as quickly as possible.

In pursuance of the special object which the Government had in view, namely, to relieve pressure on the railways, efforts have been made to transfer all suitable traffic from rail to canal. Some of the coal traffic in the Midland district which was formerly carried partly by railway and partly by canal is now conveyed the whole way by canal. Quantities of wheat, previously conveyed by railway from the west coast ports, have been diverted from the railways and are now worked by barge from Liverpool and Manchester inland to points in Lancashire and Yorkshire. Similar arrangements have also been made in respect of sugar, and month by month tonnage over the canals is growing with corresponding relief to the pressure on the country's railways.

CHAPTER XII.

IMPORT RESTRICTION POLICY.

In the later months of 1916, with the continually growing calls to meet the demands of our Navy and of our Armies in the various fields, and to provide transport for both military and civil needs of the Allied nations, the difficulty of maintaining oversea supplies had been rapidly increasing, and when the Government took office, the whole question of ensuring the continued importation of necessary supplies had reached an acute stage demanding immediate attention.

Of the several lines of action by which relief could be found, one of the principal was drastically to cut out all unnecessary imports. A policy of restriction had been introduced in February, 1916, when a proclamation was issued restricting the imports of paper and paper-making material, furniture and woods, hardwoods, tobacco, stones and slates. During 1916 the list was from time to time extended, but the additions did not affect any large groups, and, between the 1st March, 1916, and the end of February, 1917, the reduction effected in the imports of all "restricted" articles, as compared with the preceding twelve months, totalled about 1,400,000 tons. On the 21st December, 1916, the Government decided that a Committee, under the chairmanship of Lord Curzon, "should at once be assembled to consider and report on the further restriction of imports."

In addition to the restrictions already in operation, the natural consequence of nearly two and a half years of war had been greatly to reduce the importation of luxuries and of raw material for their manufacture, while the decrease in our export of manufactures had lessened the import of corresponding raw materials. Thus the Committee had no great tonnage of non-essentials to draw on, and, to secure the imperatively called for relief to our shipping, consideration had to be given to the possibility of cutting down the import of necessaries by, on the one hand, bringing about economies in consumption and, on the other, developing the home resources of the country.

A thorough and detailed examination of the problem was forthwith made, the following principles being laid down as a basis of the action decided on :—

- (1) We must continue to import in sufficient quantity all things necessary directly and indirectly for war purposes, in so far as they cannot be produced or are not already in stock in this country.
- (2) We must continue to import in sufficient quantity the necessaries of life for the civilian population in so far as they cannot be produced or are not already in stock in this country, and all things indispensable for the production, manufacture, and distribution of such necessaries.

- (3) It is very desirable from the point of view of exchange to continue to import the raw materials of the manufactures which we export.
- (4) It is very desirable from the point of view of exchange to exclude manufactured articles which are not indispensable for the above purposes or which, if indispensable, can be produced in this country.
- (5) Exclusion is specially advantageous from the tonnage point of view in the case of those articles which are heavy (weight being in most cases more important than bulk), especially if they are brought from great distances; from the exchange point of view, in the case of those articles which have a high value and in particular those which are imported from countries where the exchange problem is specially difficult.
- (6) It is also desirable, for reason of practical advantage and also of public sentiment both in this and other countries, to exclude articles of luxury even if their value and tonnage are not large. The import of luxuries, besides leading directly to extravagances in expenditure, makes it more difficult to insist on economy in more necessary articles and also indisposes Allied and neutral countries to assent to important prohibitions which are injurious to their interest.

The enquiry was quickly completed, and the following restrictions were decided on by the War Cabinet and put into force on the 1st March, 1917.

	Estimated saving per month. Tons.
I. <i>Extension of existing Prohibitions.</i>	
Further restrictions in paper and paper-making materials	57,000
Further restrictions in other articles already restricted	30,000
II. <i>Timber.</i>	
Restrictions in imports to be compensated by economies in use, by increased home production and by the use of existing stocks ...	300,000
III. <i>Food and Feeding-stuffs.</i>	
Raw fruits and vegetables	52,000
Luxury foodstuffs and drinks	26,000
Brewing and distillery materials	48,000
Foodstuffs and livestock feeding-stuffs... ..	77,000
IV. <i>Raw Materials and certain other articles.</i>	
Jute and leather, boots and shoes	15,000
V. <i>Manufactures.</i>	
Including glass, painters' colours, woodware, textile manufactures, &c.	10,000

VI. *Re-exports.*

Saving of imports arising from stoppage of re-export of cotton and other material	...	10,000
Total	... ..	625,000
Margin for concessions and substitutions	...	25,000

The War Cabinet placed upon the Board of Trade the duty of generally watching and supervising the carrying out of these decisions, and of licensing the imports admitted. In addition, they eventually entrusted to the Board the control and development of home resources of timber, which up to the summer of 1917 was supervised by the War Office.

It will be seen that a number of the restrictions demanded from the nation economies or changes in the usual scale of living. In others, economy could take only a small part, and the development of home resources had to compensate for the great proportion of the loss of foreign supplies.

Timber, of which in 1916 we imported over 6,000,000 tons, was of first importance in connection with any proposals having in view a large saving in shipping space, and exhaustive enquiries were made into the several methods by which the use of foreign grown timber could be reduced. An examination of the woods and forests of the United Kingdom and France showed that they contained ample to supply all needs, civil and military, of both nations. In the case of pitwood, it was estimated that there was in our own woods sufficient for one and a half years' complete supply on the pre-war scale without trenching seriously on the capital of the woods. In addition to standing timber, it appeared from a census taken that stocks in the hands of merchants and timber users in the United Kingdom were sufficient to supply all the needs of the country for some months.

It was thus clear that with proper organisation and judicious management materially increased supplies of timber could be produced at home. It was found that six or seven different authorities were dealing with timber, whilst none had been charged with the duty of exercising any check either on imports or on consumption. In order to carry out a vigorous policy of developing home supplies and economising consumption, it was essential that all matters relating to timber should be concentrated in a single authority. A department was therefore set up under the War Office and later transferred to the Board of Trade which took over all the work of:—

- (1) The purchase and supply of timber for military requirements, including those of the Ministry of Munitions and of other Government Departments.
- (2) The control and licensing of imports and the utilisation of existing stocks and the restrictions to be imposed on the use of timber in the United Kingdom.

- (3) The development of home supplies for military purposes, for pit timber, for sleepers, and for general civil use.

The Department was also charged with the duty of keeping in view the question of reconstituting forests and safeguarding the future interests of forestry in this country.

To assist the Department in its work of securing economy, the War Cabinet issued instructions to all Government Departments requiring them to restrict the use of timber in every way possible compatible with efficiency of the public service, and requesting the chiefs of departments to see that the following instructions were carried out :—

- (1) No new building work involving the use of timber should be undertaken unless its urgency is strictly proved.
- (2) Concrete, brick or other suitable material should be used as far as possible in substitution for wood.
- (3) Temporary buildings should not be erected unless no existing buildings can be found suitable for the purpose in view.
- (4) Home produced materials, such as fibre board, baskets, bags and the like should be used whenever possible instead of wood in the manufacture of packing boxes, cases and crates for munitions and stores.

Where the use of wood is unavoidable, it must be employed in the most economical way possible as regards both quantity and quality. The method of making the boxes, &c., should be such as to ensure the least amount of damage in opening and to enable them to be taken to pieces and packed flat for return so that they may be used several times.

- (5) Where the use of wood is essential, every effort must be made to utilise home grown supplies instead of imported timber.
- (6) Heads of Departments should report within one month the steps taken to give effect to the foregoing instructions, and should furnish an estimate of the saving which they consider could be made.

These combined movements towards economy have brought about a material saving in the timber used both for Government and civilian purposes. The fall in consumption has synchronised with a rapid expansion in the quantities of home-grown timber so that, although stocks have been drawn on, the country is assured of sufficient supplies for essential purposes.

Next in rank amongst raw materials as a possible saver of cargo space was paper and paper-making material. The imports during the previous three years had been :—

1914	...	...	...	...	1,798,000 tons.
1915	...	...	...	...	1,693,000 „
1916	...	...	...	...	1,281,000 „

It was resolved to reduce imports as a whole to 50,000 tons a month, or less than half the 1916 figures and one-third of the pre-war scale. To assist this, measures were enforced restricting the size of posters and the use of paper for contents bills, catalogues and other advertising. Steps were taken for enforcing economy in consumption for the printing of Parliamentary publications and for use by Governments Departments and to organise the collection of waste paper throughout the country. The importation of foreign printed matter except in single copies by post was stopped, it being manifestly unfair to allow it to enter freely and compete with British printers at a period when their own raw material was so sharply limited.

The decision in regard to paper and paper-making material has been fully carried out. In the year 1917 the imports have totalled 586,000 tons, equivalent to 49,000 tons a month.

To carry out the policy of reducing the importation of foods and livestock feeding-stuffs by so large an amount as 77,000 tons a month without causing hardship to the people or endangering the reserves of food in the country demanded great care and judgment. The War Cabinet entrusted the work to the Food Controller and the President of the Board of Agriculture, and the success with which they have performed their mission is evidenced in the fact that, whilst the desired decrease in the imports have been secured, the stocks of essential foods within the country were at the end of 1917 materially stronger than at the corresponding period of 1916.

To secure the required decrease in brewing materials, a further reduction in the output of the breweries was necessary, and, under the orders of the War Cabinet, the barrelage brewed was reduced from the 1st April to 10,000,000 standard barrels as compared with 26,000,000 in 1916 and 36,000,000 in 1914. From the 1st July licences were issued permitting the brewing of an increased quantity which raised the output of the country to a rate of, approximately, 14,000,000 standard barrels per annum, at which figure it has since remained. The effect of these orders has been to reduce the consumption of barley, sugar, and other brewing materials by over 40,000 tons a month, bringing about directly or indirectly a saving in imports on an equivalent scale.

In the case of fruit, the actual saving has not yet attained the estimates, but the trade in fruit varies greatly with the seasons, and the principal effects of the restrictions will be shown when the returns for December, January and February are available. An additional advantage has been derived from the limitation of foreign fruits in the increased care that has been devoted to the gathering and storage of home-grown apples and pears. This, in conjunction with a prolific fruit crop, has provided the public with fairly good supplies well into the winter.

In placing restrictions on fruit and certain raw materials and manufactures, it was recognised that they might react to the detriment of the Dominions, India or the Allies, and a margin

of 25,000 tons a month was provided to meet such difficulties. During the ten months the restrictions have been operative, a number of these questions have arisen, but with goodwill and anxiety to help on the part of the exporting countries, they have been adjusted, and experience has proved that the margin allocated to this purpose has been ample. The question of restricting the importation of commodities intended for re-export received close consideration, and although the estimated saving in this direction was put forward at 10,000 tons a month, it was with the proviso that probably a much larger decrease could be secured. The result attained has been considerably above the estimate. Much of it has been due to the shipment direct to destination of supplies for our Allies from other countries in lieu of indirect shipment *via* this country. In such cases there has been no great shortening of the actual length of voyage, but the relief to our ports, the saving of time of ships in port, and the lessened demands on labour have made the reductions secured under this head of the greatest value.

It was evident that some time must elapse before the whole benefit of the new Orders was felt and that the reductions effected could not be divided into watertight monthly compartments but must vary under seasonal and other influences. The results between March 1st and the end of 1917 show that, as compared with 1916, the average decrease in imports due to the Import Restriction Policy of the War Cabinet has been well above 600,000 tons a month, fully achieving the estimates made when the decision of the Government was arrived at in the first months of the year. The total reduction effected under the restriction orders represents one-fifth of all our imports over the period, and the great volume of shipping consequently released has been available for the transport of essential foods, munitions and raw material. From the point of view of exchange, there has been a saving of over £100,000,000. In spite of the completeness with which the decisions of the Government have been carried out, no great hardship has resulted to any commercial interests or any section of consumers. Stocks of timber have been drawn on, but, with the assistance of a greatly increased exploitation of home resources no serious injury has resulted to any commercial interests or any section of consumers.

While this Report is in preparation the increasing strain that is placed upon shipping has necessitated the re-assembling of Lord Curzon's Committee and the drawing up of a further list of reductions. These were in course of being further worked out before the end of the year, but, not having then come into operation, are not included in this Report. The community has throughout borne with cheerfulness and without complaint the sacrifices and restrictions which this policy entails.

CHAPTER XIII.

**THE CONTROL AND DEVELOPMENT OF
INDUSTRY.**

In common with all belligerents, Allied or enemy, this country has, since August, 1914, moved steadily along the road of an ever-extending State control of industry. The first step, which was carried out immediately on the outbreak of war, was the taking over of the railway system of England, Scotland and Wales. This was a necessary preliminary to any great military movement, the railways being in effect a vital section of the communication lines between our armies and their main base. Such a course of action in case of war had always been contemplated, the eventuality being provided for nearly half a century ago by the Regulation of the Forces Act, 1871.

But, with a nation whose industry was almost completely designed, equipped and carried on for the usual needs and comfort of its people, the coming of a great war with its pressing demands for guns, ammunition and the innumerable items of material useless in peace but essential to military operations, forced the State to take under its direct control every engineering, chemical and other works convertible to their production.

As the military struggle developed in scope and intensity, and the necessity of concentrating national efforts on the war became more pressing, section after section of industry was taken over, and in wages, prices and profits, from raw material to finished product, was placed under Government control. The process of extending State control, taking over more works and applying it to an always widening range of products continued unbroken right up to the end of 1916. Whilst no exact demarcation line can be fixed, if a broad definition of the character of the movement to that period were attempted, it would be that industries essential to war needs had been taken under Government control, whilst industries serving the civil population were still left in private hands. In the same way 1917 may be described as the year in which State control was extended until it covered not only national activities directly affecting the military effort but every section of industry—production, transport and manufacture. Instances of the Government action during 1917 in the direction of control of civilian needs are found in the more complete requisition of mercantile shipping, the taking over of the canal system of the Kingdom and the railways of Ireland, and the regulations imposed on agriculture and on the production, importation and prices of food.

The action taken in relation to these is described in other pages, but during the year there have been extensions of State control

affecting coal, mineral oils, timber, ores, metallurgical products, chemicals, leather, tobacco and all divisions of the textile industry.

Coal.

Amongst our greatest sources of wealth, of first importance in their bearing both on home industries and foreign commerce, the coal mines of the United Kingdom in 1913, the year before the war, gave employment to a million men and produced 287 million tons of coal. Of this, 98 million tons was exported or shipped as bunkers on steamships in the foreign trade, and 189 million used within the country.

The outbreak of war made little change in home demands, the reduced consumption in industries prejudicially affected being almost balanced by the needs of works constructed for or converted to the supply of munitions and other war materials. But with home consumption barely maintained, exports of coal decreased by 32 million tons per annum, 43 per cent. of the pre-war figure, so that, in total, the first months of war saw a sharp fall in output.

But whilst output fell, the labour necessary to produce it fell even more rapidly. In the first campaign for Kitchener's Army, the miners enlisted in tens of thousands, and it is still fresh in people's minds how, in August, 1914, towns in the coalfield centres were overwhelmed with the young patriots from the pits, who slept in the garden or in the street, and were fed from hastily devised municipal kitchens until they could be passed by the recruiting staff.

Shortage of labour quickly told its tale in rising prices, which were the subject of inquiry by a Departmental Committee on Retail Coal Prices appointed by the Board of Trade in February, 1915. Early in 1915, in accordance with one of the recommendations of this Committee, the Government took the first step in control. This took the form of restricting coal exports, it being felt that greater quantities would thus be available to meet home demands, and prices would, in consequence, be kept within bounds. In July, 1915, a more direct control was established by the "Price of Coal Limitation Act." This Act, which applied only to coal for consumption within the country, enacted that the price chargeable for any class of coal should not exceed by more than 4s. a ton the price charged in the year ending 30th June, 1914. A proviso gave power to the Board of Trade to allow an increase on the 4s. in any case where special circumstances justified it.

Whilst the interests of home consumers were thus secured, shortage of supplies ran the prices of export coal to high figures. To protect our Allies, maximum prices for coal and maximum freights for its conveyance were, in 1916, by voluntary arrangement with the coalowners, exporters and shipowners, made applicable to exports to Allied countries.

Thus, from the outbreak of war to the later months of 1916, State action in relation to the coal mining industry has been limited to controlling exports by licences, and regulating prices by Act of Parliament or by agreement with the mine owners. In November, 1916, difficulties arose between the mine owners and the men in the South Wales coalfields, which furnishes our Navy with its supplies of smokeless steam coal. The dispute threatening to bring about a shortage, the Government decided to take over control of the South Wales mines, and this was carried into effect as from the 1st of December, 1916.

Afterwards prices were regulated for all coal for the use of our own people or our Allies; the mines of South Wales and Monmouthshire with their annual output of 52 million tons were under Government control; the remaining coalfields producing over 200 million tons were still privately controlled as before the war; 300,000 men had left the mines for service with the forces, and the output of the country had fallen to a rate of 256 million tons per annum.

The uninterrupted supply of large quantities of coal is a vital necessity both for Great Britain and her Allies in the war. The problem of providing such supplies for military, naval and Allied needs as well as for requirements of industries and the public at home, had in recent months been complicated by labour troubles in certain districts and difficulties in transport. It was felt that private management could not effectively meet these needs, and the War Cabinet decided that the control already in force in the South Wales coalfields should, from the 1st of March, 1917, be extended to the whole of the coal industry of the country.

To deal with the onerous responsibilities which passed to the Government with the taking over of the mines, a special Department was established under the Board of Trade, with Mr. Guy Calthrop as Coal Controller.

The first and most important duty was the maintenance of output on a scale sufficient to provide for our great home consumption and for the needs of our Allies. The output of coal and our own consumption in 1917 and previous years was :—

Year.	<i>Output.</i>	<i>Shipped for Export and bunkers.</i>	<i>Consumed in U.K. and by Navy.</i>
1913	287,412,000	98,339,000	189,073,000
1914	265,643,000	80,994,000	184,649,000
1915	253,179,000	59,953,000	193,226,000
1916	256,348,000	55,809,000	200,539,000
1917	247,680,000	49,400,000	198,280,000

The bare statistics of the country's production are not sufficient to make clear the position. In the coastal coalfields, the severe cutting down of exports had reduced the total call for coal to

about 80 per cent. of the normal. On the other hand, in the inland areas, Yorkshire, Lancashire, Derby and Staffordshire, the consumption of coal continued practically at the highest point attained before the war. The following figures illustrate this :—

<i>In the first six months of</i>	<i>Coal Produced.</i>	
	<i>Coastal : Northumberland, Durham and South Wales.</i>	<i>Inland : Other English Counties and North Wales.</i>
1914	56,107,000	63,103,000
1916	48,597,000	61,555,000
1917	45,821,000	63,101,000

With production secured, the next problem to be faced was that of railway transport. Before the war coal represented something like one-third of the railway traffic of the country. But, in addition to the quantity rail-borne, 23,000,000 tons of coal was carried by sea to London and other home centres of consumption from ports in or bordering on coalfields. With decreasing shipping and abnormal sea risks, this great tonnage, practically all of which required conveyance over long distances, was thrown on to our over-pressed railways. One of the effects of this was the grave difficulty, resulting in a good deal of suffering, experienced last winter in providing coal for domestic purposes, particularly in London. To find a solution, an enquiry was at once instituted into the whole question of the conveyance of coal, the coalfields from which each market was supplied and the routes and distances over which the coal was carried. It was found that in innumerable instances coal was delivered from distant coalfields to districts which could equally well be supplied by nearer pits from which a much shorter railway journey would be required. To correct this, the country was divided up into zones, each coalfield or group of coalfields being allotted those zones for which it formed the nearest source of supply. No colliery was entitled, except under special licence, to despatch coal to any points outside its allotted zone. This reorganisation of the coal traffic of the country has proved of the greatest value, and it is estimated that the effect of the re-arrangement has been a saving in haulage of 700,000,000 ton miles per annum. All the saving is clear gain to the railways, and, whilst minimising any risk of coal shortage owing to railway congestion, it has enormously increased the amount of transport available for the other needs of the nation at home and overseas. It is quite obvious that this scheme could not have been put into operation had the coal mines not been brought under a central control.

As a further precaution against a repetition of last winter's coal shortage in London, an elaborate scheme was organised for the accumulation during the summer and autumn months of such

stocks of coal as would preclude any possibility of a shortage during the present winter, and for limiting household consumption to certain specified quantities. For the protection of householders and other retail buyers of coal, the regulation of prices, hitherto confined to the price at the pit's mouth, was extended to cover all wholesale and retail merchants' charges between the mines and final delivery to the consumer.

Arrangements were also made in June, 1917, to regulate prices of coal for export to neutral countries and to control the prices of coal supplied for bunker purposes.

With the control of the mines, responsibility for general wage settlements passed to the Government. Miners' wages are normally settled by districts and depend mainly on the price of coal, but since the outbreak of war various special advances have been granted. In the summer months application was made on behalf of the miners of the whole Kingdom for an increase to meet the rising cost of living. After negotiations, an increase of 1s. 6d. per day, operative from 17th September, 1917, and applying to all colliery workers over 16 and 9d. a day to those under 16 years of age, throughout the Kingdom was agreed to. Following the advance, and to meet the increased cost of working, the Board of Trade decided to raise the price of all coal for inland consumption by 2s. 6d. per ton as from the 17th September for industrial coal and the 15th October for domestic coal.

Although the Welsh mines had passed under Government control in December, 1916, arrangements as to the payments to be made to the mineowners were still unsettled when, on the 1st March, 1917, control was extended to cover all coalfields of the country. Prolonged conferences with the mineowners have since taken place and an agreement arrived at and embodied in an Act of Parliament.

It being essential in the national interest that the Coal Controller should have a free hand to regulate the production and distribution of coal without having to deal with innumerable individual claims for compensation, it was felt that provision should be made for a general financial settlement. The Act, therefore, provides for the payment of a proportion of all excess profits made by coalowners into a fund which will be used as a pool from which to compensate owners of other mines, the profits of which fall below pre-war earnings. Provision is also made for a special levy to meet the case of mines closed by the Controller.

Opening with the transference to Government control of the whole coalmining industry of the country, the results of the year have fully justified the policy. Home requirements for war, industrial and domestic purposes have been met and within the limits of the shipping available supplies to our Allies have been maintained. The miners have shown every desire to help,

with the result that in all coalfields output has been kept up to the demand. The difficult question of compensation to the mineowners has been dealt with. A complete reorganisation of the coal transport problem has been framed and put into operation with an immense resultant saving to the railways of labour, engine power and wagon capacity.

Mineral Oils.

The country's consumption of petroleum and other mineral oils has greatly increased since the commencement of the war owing to the development of munition factories, motor transport, and the aviation Services, together with the growth of naval requirements. It is no exaggeration to say that in every service of the State as well as in Civil work, the adoption of efficient and modern methods has resulted in an increase in the consumption of petroleum products.

The Navy consumes large quantities of petroleum as fuel, the transport of food and munitions to the Armies and the continually expanding aviation Services absorb petrol in increasing quantities, while every factory extension and addition to machinery means further calls on our supplies of mineral lubricating oils.

In February, 1917, the Government appointed an Inter-departmental Committee to co-ordinate the work of the different departments in connection with petroleum. Later it was considered advisable to place the work in the hands of a responsible Minister, and in May Mr. Walter Long was asked to take control of all matters connected with petroleum and petroleum products.

Mr. Long proceeded to arrange for the organisation of a special department under the Ministry of Munitions to undertake the work of the production of oil from home sources. The Mineral Oil Production Department under Sir Arthur Churchman, Bart., has completed a comprehensive survey of the resources of this country with a view to the production of oil from cannel, bituminous coal and other minerals. Although very great difficulties have to be met owing to the shortage of labour and materials, arrangements have been made to obtain a considerable production of oils during the coming year by the utilisation of retorts at gasworks for the distillation of these coals. Steps are also being taken to erect batteries of retorts at a limited number of colliery centres where the conditions are suitable. In addition to the above, actual drilling tests are to be made of areas where there is a possibility of natural petroleum occurring.

In the meantime the work of distribution had been placed in the hands of the Petroleum Pool Board under the Chairmanship of Sir Walter Egerton, K.C.M.G., while a special department of the Board of Trade, the Petrol Control Department, presided over by Sir Evan Jones, Bart., undertook the issue of licences and the rationing of the civilian population.

The amount of administrative work in connection with Petroleum continued to increase to such an extent that Mr. Long found it necessary to create an Executive department to deal with matters of policy and to co-ordinate the work of the various departments, in particular with regard to the Admiralty, War Office and Ministry of Munitions, who were consumers on a very large scale. Accordingly in August, 1917, the Petroleum Executive was formed with Professor John Cadman as Director. The Executive continues to deal with the larger questions of policy as regards petroleum in which His Majesty's Government is interested.

The problem of maintaining petroleum supplies has been as urgent as it has been difficult. In no other section of our imports has the demand increased to such an extent as in the case of petrol and fuel oil; and, whilst in some directions there was room for economy, in all those directions where consumption was largest, *i.e.*, motor transport, aviation and fuel oil for the Navy, not only could no reduction be obtained but the necessities of the war called for supplies which have consistently increased.

Wherever economy has been possible drastic steps have been taken. In the use of petrol for State purposes special officers have been appointed under each Department whose sole duty it is to ration each section of their Department. In the Army and Navy efforts have been made to reduce to a minimum the consumption for other than war purposes. It is almost impossible to give figures showing the economies effected in the consumption of petroleum products, for while economy has been continuously enforced by means of restrictions placed on the use of petroleum for departmental and private use and non-essential trades, the total consumption of the country owing to war demands has increased. In respect of private use, in June, 1916, the number of owners of private motor cars and motor cycles in use was approximately 185,000, and the quantity of motor spirit used in these vehicles was 10,700 tons monthly. At the present time licences are held by 60,000 of the 185,000 owners, and the monthly quantity of motor spirit licensed for consumption is 2,300 tons per month.

Severe restrictions have been placed on the employment of motors. No private-owned cars are permitted to be used for any but necessary business or the performance of national work, and the Police have been instructed to stop all motoring for purposes of pleasure or where railways or other means of conveyance are available. Where these regulations are broken, prosecutions are at once instituted and fines have been imposed in many cases.

The closest attention has been given to the development of home resources. To increase the production of shale oil, existing works have been extended in order to develop shale deposits already proved and worked. Simultaneously with this, experts—geological and chemical—have been engaged in ascertaining the extent and oil contents of deposits in various parts of the Kingdom

not yet worked, with the object of developing new areas of oil-bearing shale. Borings have been made in the Dorsetshire shale beds, where the oil contains a considerable percentage of sulphur, and in other districts. Efforts have already resulted in raising the output of shale oil by an appreciable percentage as compared with 1916, with much greater and more rapid advances in prospect as the new sources of supply are developed.

Two sources are responsible for the production of coal tar oils; (a) gas works, where they form one of the bye-products in the manufacture of illuminating and power gas, and (b) coke ovens, where they are a bye-product recovered in the process of manufacturing coke for use in the metallurgical industries. At gas works arrangements have been made not only to extend works and devote a considerably increased plant to the extraction of oils, but also, by alteration in the process of manufacture, to secure a greater percentage of oils in the total product. These changes and extensions are in course of being carried out in a number of works, and will as rapidly as possible be put into operation throughout the country.

Action on the same lines has been taken in relation to colliery coke ovens. Bye-products plant for the recovery of tars has been added to batteries not previously equipped and large numbers of new ovens with full equipment for recovery have been erected. Existing coke-oven bye-products plant has been adapted and new plant laid down with a view to securing the maximum percentage of oils.

The real effect of these efforts can only be shown in the future; but the results already achieved constitute a useful help towards meeting the country's requirements.

But the present output of home-produced oils, or any increase likely in the near future, will still leave the nation dependent on overseas sources for a considerable portion of its supplies, and here the chief difficulty is one of transport. Nearly all our imported oil is brought in "tankers," steamers specially constructed for the carriage of oil in bulk. Of these, we possess a large number, but the whole of this fleet of oil carriers is by no means all available for our own wants, a considerable number having to be devoted to meeting the needs of our Allies. The United States is the only other nation possessing a large fleet of tankers, and they are rendering us and the other Allies most valuable assistance. Efforts are being made to pool American and British tanker tonnage with a view to securing still more effective and concentrated organisation for its use in the service of all the Allied powers.

The whole question has been one of special difficulty. In the case of other raw materials growth in war demand has been largely or entirely compensated for by the falling off in the requirements of ordinary consumers, but, with oil, any economy it has been possible to secure in the usual channels of consumption has been negligible compared with the increase called for to meet

the irreducible needs of the forces, naval and military, of the Allied powers. The steps taken have not only provided these requirements but have in recent months enabled our stocks of oil to be strengthened, whilst the arrangements in progress for increased production from home sources and for concentration of tanker tonnage should provide for still further growth of consumption should it prove necessary.

Timber.

The intervention of the Government in timber supplies commenced as far back as October, 1914, when the question of timber for erection of training camps became acute. At the request of the War Office, the Office of Works undertook the purchases necessary for these camps, and, with a view to buying in the most economical manner, appointed a firm of timber merchants as official Government buyers. This arrangement was gradually extended until the Office of Works was supplying practically all the soft timber requirements of the War Office in addition to those of most of the other Government Departments.

In view of the increasing demands on tonnage, it was decided in the autumn of 1915 to utilise more fully the timber resources of this country. For this purpose a Committee, known as the Home Grown Timber Committee, was set up as a branch of the Board of Agriculture. This Committee purchased woods and erected sawmills which were operated by labour directly employed. In addition, certain mills were operated by Canadian lumber battalions, the first of which started work in this country in May, 1916.

Early in the Committee's operations it became obvious that power of compulsory acquisition of areas of standing timber was essential, and in April, 1916, an addition to the Defence of the Realm Regulations was made, empowering the Government to enter on land and take possession of and fell, convert and remove standing timber.

In order to avoid competition between the British and French Governments in the buying of timber, early in 1916 an arrangement was entered into between those Governments by which all purchases were made through a body called the "Commission Internationale d'Achats de Bois." Other allied Governments subsequently decided to adhere to the Convention, and the C.I.A.B. now consists of representatives of the British, French, Belgian, Italian and American Governments.

In the summer of 1916 the supply of timber for the armies in the field gave rise to some anxiety by reason of:—

- (1) The difficulty of obtaining sufficient tonnage for the transport of timber to France, and
- (2) The limited discharging accommodation at the British Expeditionary ports in France.

Negotiations were entered into with the French Government, and a Convention was signed whereby the British Government were given facilities for the cutting of timber in France whilst the French Government obtained a share of British requisitioned tonnage for the transport of timber from overseas for the use of the French armies. The effect of the arrangement has been largely to increase the production of timber in France, to reduce considerably the demands for tonnage and to lessen the congestion at the British Expeditionary ports in France.

Coincident with these efforts to secure increased timber from the woods and forests of the United Kingdom and France, the war had brought about a great reduction in the consumption of wood for civil purposes. Building for other than Government purposes had practically ceased. The output of coal mines had fallen by 32 million tons, with a corresponding decrease in the consumption of pitwood. Consequently, by the end of 1916 our imports of timber which were over 11,000,000 tons in 1913 had fallen to a rate of 6,000,000 tons per annum.

This was the position when the present Government appointed a Committee under Lord Curzon to examine the whole question of imports with a view to relieving the pressure on shipping by cutting off all supplies from abroad that could be dispensed with or replaced by home production. In their Report, which received the endorsement of the War Cabinet in February, 1917, the Committee recommended the reduction of timber imports by a further 3,600,000 tons a year, the loss to be made up as far as possible by economies, but in the main by the increased exploitation of home supplies.

In pursuance of this policy the War Cabinet created, under the War Office, a Timber Supplies Department which took over the functions then exercised by a number of Committees and Departments, including the Office of Works and the Home Grown Timber Committee. At the end of May last this Department was transferred from the War Office to the Board of Trade, and Mr. James B. Ball was appointed Controller of Timber Supplies.

By far the most important duty placed on the Department is the replacement of decreases in foreign supplies by felling and preparing timber grown in our own country. This resolves itself into a question of securing, firstly, the necessary labour, and, secondly, the plant and machinery for cutting and milling, and the motor tractors and other vehicles for transport from the woods to the railway. During 1916 the number of our own workmen experienced in this work was supplemented by Canadian lumbermen. In addition, some hundreds of German prisoners were utilised for woodcutting.

Throughout 1917 every source from which suitable labour could be secured has been explored. Owners of woodlands and timber merchants throughout the country have been encouraged to divert to wood cutting all the local labour capable of the work which is not engaged in agricultural or other essential war work. Negotiations have been entered into with the Governments of the

Dominions and contingents of the Canadian Forestry Corps and Newfoundland Forestry Corps, numbering nearly 7,000 in all, have come over. The United States has helped us with a party from New England; other bodies of men have come from Portugal and Finland. Further batches of German prisoners have also been utilised. In all, something like 15,000 men have this year been added to the force of foresters engaged in producing timber in the United Kingdom. The provision of cutting and milling plant and machinery with the additions required for road transport have kept pace with the increase in the man-power available for the work, so that in 1917 the production of home-grown timber has risen from $1\frac{1}{4}$ million to 3 million tons.

When the Timber Supplies Department had been formed, steps were forthwith taken to control the consumption in the country of imported softwood as well as to secure economy in the use of it. To ensure the greatest economy in its use by all Government Departments, special instructions have been issued by the Cabinet on economy in the use of timber for war purposes. In accordance with the instructions, Government Departments have appointed specially selected officers to scrutinise all applications for timber on their behalf before granting the requisite certificates. To help Departments to minimise the use of timber for packing, the services of highly experienced packing experts have been secured who inspect the packing arrangements of the Department and suggest revised methods of packing, as well as the most economical designs and specifications for cases and crates. These efforts have produced satisfactory results, and have led to very considerable diminution in the present use of timber. Some of them, in particular the improved methods of packing, have brought about economies of a permanent nature which will continue after the war. Movements similar to those initiated in Government Departments have, with equal success, been put into operation with private firms and other users of timber amongst the general public.

One of the first acts of the Timber Supplies Department was to bring under their control all stocks of softwoods in the country. To prevent undue inflation of prices this action was accompanied by an Order fixing prices at those ruling during the week ending 31st January, 1917. Subsequently, in view of increased costs, these prices were permitted to be exceeded by one-third in respect of softwoods imported after 15th May, 1917, subject to limitation of profits to 10 per cent. The shortage of imported supplies reacted strongly upon the home-grown timber trade. With merchants buying both for the Government and for general use, and with the enormous additional demand resulting from the effort to replace from home sources about 300,000 tons a month of timber previously imported, there was a strong probability of prices rising to unreasonable levels. This has now been made impossible by the issue of an Order fixing maximum prices for all timber produced in the United Kingdom. Another Order prevents speculative purchases of standing timber with a view to holding for higher prices; and yet another brings under

control the export of native timber from Ireland to Britain to prevent depletion of supplies needed in Ireland.

These various lines of action—the control of stocks, the exploitation of home-grown woods here and in France, and the economy secured by strict supervision of all Government and private consumption—have enabled the country to reduce its imports of timber between March and December, 1917, by 3,300,000 tons, as compared with the corresponding period of 1916, releasing an equivalent tonnage of shipping for the carriage of other essential material. In doing this, whilst stocks in the country have decreased, they are still standing at a figure which assures the country for months to come under any probable contingencies against scarcity of timber.

Metals.

As the primary necessity in the manufacture of munitions, Government control had, since the early days of the war, embraced iron and steel in all stages of manufacture, together with many of the non-ferrous metals and chemical products necessary for the manufacture of ammunition and other war material. The changes in 1917 were directed to making more complete the control of distribution, consumption and prices. With copper, at the end of 1916, manufacturers were required to make returns of output, and in January, 1917, the Ministry of Munitions was empowered to take over stocks, becoming at the same time virtually the sole importer of copper by reason of restrictions placed on importation. In this way complete control was established for all dealings in the metal. Dealings in spelter were brought under control in March, 1917, and the use of this metal is now restricted to approved purposes. At the same time spelter refining has been actively developed.

Similarly, dealings in lead and aluminium have been brought under stricter control, and in July, 1917, the Ministry took possession of all iron ore mines in the country.

Fuller accounts of the extension of control, the development of home resources and the salvaging of scrap metals are given in preceding pages under the record of the Ministry of Munitions. In all cases, the effectiveness of the control exercised by the Ministry of Munitions has been abundantly vindicated, and the system has resulted in the provision of satisfactory and uninterrupted supplies for War purposes with a minimum of interference with the supply of essential civilian needs.

Chemicals.

The control over acids has also been extended. In June, 1917, the purchase, sale and manufacture of sulphuric acid were prohibited without a licence, and, in August, minimum prices were fixed for superphosphates, and manufacturers were ordered to make returns of stocks. In October the sale, purchase, &c., of acetic acid was prohibited without a licence.

Textiles.

In view of the importance of obtaining supplies to meet the greatly increasing demands of the Services, and at the same time of keeping prices within bounds, it has been necessary to extend control to the raw material of the woollen, hemp, flax and jute industries and also of the leather industry.

Wool.—The world shortage of wool which made itself felt at the beginning of 1916 forced the Government to take steps to ensure not only reasonable prices, but also the satisfaction of the heavy demands for military clothing. The home wool clip of 1916 was therefore purchased, the collection being undertaken by expert wool buyers serving for the purpose in the Army Contracts Department of the War Office. The prices were fixed, after careful consideration, at 35 per cent. above those ruling in June and July, 1914. The success of this scheme, together with the fact that neutral and American demands for wool were particularly heavy, led to proposals in November, 1916, for the purchase of the Australasian clips. This operation, which involved an expenditure of about £35,000,000, as against £7,500,000 for the home clip, was carried out through the Australian and New Zealand Governments, which arranged a purchase price at rather less than 10 per cent. below the market price ruling at the time. The organisation of valuation and purchase in the Colonies was entrusted to committees of trade experts appointed by the Commonwealth and the Dominion Governments.

The conditions which led to the purchase of these clips in 1916 rendered still more urgently necessary the purchase on the same lines of this season's British and Australasian clips; and as the result of recent negotiations, a substantial quantity of this season's South African clip has been purchased.

In addition to the purchase outright of these clips, measures were taken early in 1917 to bring under the control of the Army Contracts Department all other raw wool and wool products up to and including the topmaking stage in stock or arriving in the United Kingdom.

The wool acquired by His Majesty's Government under the schemes outlined is distributed in priority—

- (a) to Government contractors *pro rata* to Government contracts in progress, and
- (b) to manufacturers for the export and home trade against rationing certificates.

The wool is issued at prices fixed over a period of six months ahead in order to stabilise trade and enable manufacturers to compete advantageously in foreign markets.

With regard to the ordinary civilian trade of the country, it became evident early in 1917 that it was imperative to curtail considerably the consumption of wool if the Allied military requirements were to be met and an adequate reserve of wool

built up against a prospective decrease, owing to transport difficulties, in the arrivals in this country. This situation necessitated the introduction of a system of rationing of manufacturers for the ordinary home and export trade, and the country has been divided up for this purpose into districts which each receive a quarterly allowance of the wool available for civilian trade based on their usual scale of consumption. The actual allocation of the ration of each district to its manufacturers is undertaken by committees appointed by the trade in each area, which examine applications for wool, tops and yarn, quarterly, and either approve or reject them. The total of raw materials required for the quarter in respect of the approved applications is compared with the district ration for the quarter and, if found to exceed it, a dividend is arrived at and the amount to be issued in respect of each approved application is reduced accordingly. The whole rationing scheme is supervised by the Board of Control of the Woollen and Worsted Textile Industries, which is composed of representatives of employers, employees and the Army Contracts Department in equal numbers, sitting in Bradford, under the chairmanship of the Director of Wool Textile Production.

There is no doubt that this control of wool supplies has resulted in great economies to the State. Not only has the effect of war conditions on the market prices of the raw material been largely eliminated, but the fixed prices of raw material have enabled the Government to control the costs of production at every stage.

The allied requirements of raw wool have as far as possible been satisfied by shipments from Australia and New Zealand. Large quantities are being disposed of to the United States Government for naval and military purposes in addition to a certain amount for civilian purposes. In addition to this, provision has been made for the wants of Canada and India. Japan has received considerable quantities of merino tops made from wools combed in Australia. Tops, noils, wastes and yarns have also been supplied freely to our European Allies, and every effort has been made to assist them in keeping their respective woollen industries working as far as practicable.

Jute, Cotton, Flax and Hemp.—The exigencies of the war have necessitated the exercise of a considerable measure of control over jute, cotton, flax and hemp, and the goods manufactured from these materials.

With a labour supply diminished by the need of the Army for recruits, with increasing demands of the British and Allied forces, and a restricted supply of raw materials, the difficulties of meeting even essential requirements necessitated the absorption by the Government in certain instances of the entire output of the industry. If allowed to operate uncontrolled, these conditions would obviously have produced an immense inflation of prices. In the case of cotton, jute, flax, and, to a more limited extent, hemp goods, the situation was met by calling in the aid of expert advice in the matter of fabric and prices and in the negotiation of contracts, together with the use of the reserve of

statutory power under the Defence of the Realm Acts—which it had seldom been necessary to put into actual operation—to obtain full information as to cost of production and to ensure that contract prices allowed no more than a reasonable rate of profit, calculated in general on a pre-war basis.

In regard to jute : As the prohibition, in February, 1917, of jute imports was likely to lead to undue inflation of values of spot stocks, all unsold stocks were taken over by the Government on that date on the basis of the market price prior to the prohibition. This jute was distributed to manufacturers as necessity arose at uniform prices based on the price paid with an addition representing the interest, carrying charges and the costs of transport incurred. Supplies have been furnished to the Governments of our Allies on the same advantageous terms. The effect of this measure has been to ensure a distribution of available supplies equitably amongst consumers and also to secure a uniform market price free from fluctuations. In other European countries without Government control of supplies or prices, the open market value has been from 50 per cent. to 80 per cent. higher.

Although, as far as possible, cheaper cotton substitutes are being taken in place of flax goods, the Army requirements for the latter are very large. In August the Ministry of Munitions took possession of the 1917 crop of flax and of all flax in the United Kingdom. Purchase, sale, &c., were prohibited without a licence and maximum prices were fixed. Control was also established over the transport arrangements in respect of flax received here from Russia. Prior to these arrangements there was a shortage of the raw material in this country and prices became inflated. The Government's action has led to a large increase in the quantity imported and has eliminated competition amongst British buyers in Russia.

Another article over which control has been established is that of manila hemp. About 80 per cent. of the manila hemp consumed in this country is at present required for Government purposes. In April, 1917, an Order was issued prohibiting all trade in manila hemp, and the Government undertook the purchase and distribution of manila hemp for all purposes. The hemp is distributed on arrival to ropemakers, the distribution being made at fixed prices about £10 per ton under market values ruling prior to the control. The effect of the action taken in respect to manila hemp has been to ensure a sufficient supply of the commodity on a fixed basis of price. The supply and distribution has been secured through the ordinary trade channels at a regulated rate of remuneration, and the undue profits previously resulting from private speculations have been done away with.

Towards the end of June, 1917, the country was faced by a serious crisis in the cotton industry. The difficulty of securing full supplies of raw cotton side by side with the necessity for maintaining a reasonable standard of employment among large numbers of workers—mostly women

who could not well leave their locality or be absorbed by other forms of industry—led the Government to take action. With the co-operation of the industry, a Cotton Control Board was set up. Steps were at once taken to prevent misuse of the facilities of the Liverpool Cotton Market, and the main question of the dangerously low state of stocks of American cotton was tackled. The production of the cotton mills was cut down to 60 per cent. of the pre-war standard except in certain cases in which a more generous standard was allowed under a system of payment of levies. The sum raised by the levies is utilised for the purpose of safeguarding the interests of the workpeople in the less employed mills and of preventing widespread distress which would otherwise occur. The result of the action taken has been that concurrently with a great economy in tonnage space an industry vital to the country has been saved from serious dislocation.

Leather.—Before the outbreak of war the demands of the Government for leather and leather goods were comparatively small, amounting to less than one per cent. of the total output of the leather industry in Great Britain. At the end of the first year of the war, these demands had increased from £350,000 to about £15,000,000 per annum, and during the last twelve months they amounted to £20,000,000.

Whilst our requirements thus expanded, the sources of supply of raw material required for the manufacture of leather were as a result of the state of war naturally restricted, whilst means of transport of such material as came from overseas were increasingly curtailed. Moreover, up to the entry of the United States of America into the war, Great Britain was probably the main source of supply for leather articles required by the Allied troops. It was therefore necessary to develop home production to the utmost possible extent, and whilst the Government's main concern was obviously to meet the colossal demands upon it, demands which necessarily involved some interference with the trade of the country, it had constantly in mind in the process of that interference its obligation to leave this trade, with its greatly expanded production, in a strong position to face international competition after the war.

It became clear at an early stage that ordinary forces of competition would not secure the supply of materials at reasonable prices. The Army demand was in many instances greater than any supplies that were in sight, and, had a system of competitive tendering been maintained, prices would have risen to undue heights. It was accordingly necessary to take such control both of home production and importation into this country as would render it certain that these demands should be met.

In the early part of 1917 the previously constituted Advisory Committees dealing with leather supplies were merged into a Central Leather Supplies Advisory Committee, which contains representatives of the chief federations of employers and of the leading trade unions in the leather trade. This Committee has

formed a number of Sub-Committees which have met regularly and given detailed advice to the central body. The relationship between the Government Departments and these Committees has been uniformly harmonious, and the existence of the Committees has undoubtedly contributed considerably to the smooth running of the industry, providing, as they have done, an easy channel both for criticism and suggestion.

The large demands for sole and upper leather for military purposes, accompanied by the fact that for these purposes only the best leather was acceptable, have caused considerable difficulties to those engaged in the production of civilian boots, and, whilst in aggregate the extent of production has not been curtailed, it was thought necessary during the summer of 1917 to take some steps to ensure that the industrial workers of this country should be adequately shod during the winter months. Arrangements were therefore made in consultation with the trade, to provide for the production of war-time boots. These boots will be supplied in sufficient quantities to meet the demands of the working population, and they will be manufactured and distributed at controlled rates of profit.

Salvage of Textile and Leather Goods.

In considering the steps which have been taken in the control of these industries, reference must also be made to an organisation which has been set up to utilise unserviceable supplies. Special steps have been taken to deal with all worn-out woollen textiles. Garments condemned by military units are sent to a salvage depot. Large quantities of rags are salvaged from all the war areas. New cuttings from woollen material supplied to contractors for making up army clothing are issued at fixed prices to army cloth contractors, as are also the similar cuttings from cloth ordered on behalf of other Government Departments and public bodies. These Departments and public bodies have been warned to economise in woollens and to forward for national use all their condemned garments and rags. In addition, steps have been taken in conjunction with the National Service Department and through other economy organisations to encourage the civilian population to save woollen rags.

Similar lines have been followed to secure the disposal to the best possible advantage of cotton rags and unserviceable cotton articles.

Arrangements have also been made to deal with the salvage of boots. Boots fit for military wear are repaired for the purpose. The remainder are graded by prisoners of war under the supervision of trade experts in order to meet various trade requirements. A system of research has been set up to enquire into the methods of utilising old boots and scrap leather in the manufacture of various commodities of which there is a scarcity.

In conclusion, it may be stated that efforts are constantly made to encourage and arrange experiments for the better utilisation

of waste products. Wherever possible, they are used as a raw material for manufacture of goods required by the State, but when this is not possible, ordinary trade methods of disposal are enquired into and adopted if found to be advantageous. The amounts realised by the sale of such salvage during the past twelve months amounted to over a million and a half.

Further steps are being taken to extend these salvaging operations, by means of a salvage organisation within the Army, to all articles of military use. At the same time a National Salvage Council is being formed consisting of representatives of the principal Government Departments concerned, which will deal with all classes of waste products in civil life.

Textile and Leather Supplies for Allied Governments.

The problem of obtaining the supplies necessary for our Forces and our civilian population has been complicated by the demands which the Allies have made on British industries. The early course of the war seriously depleted the manufacturing capacity of France; later Russia was affected, and, consequently, these countries looked to the United Kingdom for help. Independent purchasing by our Allies in British markets was soon found to be reacting on prices, and preventing the prompt execution of our own essential orders. An Inter-Allied Committee was therefore established under the title of the Commission Internationale de Ravitaillement with a view to co-ordinating purchases. The work of that Commission has had important and beneficial results for all the Allies, *e.g.*, more economical use of available supplies of raw materials, labour and machinery; less interference with war orders; and, generally, a greater steadiness of markets with much more advantageous prices than would have been possible if unrestricted competition by agents of all the Allied Governments had been permitted.

Whatever goods are purchased for the Allies are provided at the same prices and on the same conditions as for the British Government, and, although this policy may have considerably restricted the freedom of the British manufacturer, it has had important results in getting the best out of the industrial organisation of the country. This tendency to concentrate in one hand the work of buying for the Allies from British industries—at least from the staple industries—has become more pronounced during the present year owing to the still greater stringency of all essential raw materials.

This shortage of material, in conjunction with the pressure on machinery and labour, has had an important result. It was found that in present circumstances the varying specifications of the Allies and our own Departments for certain goods made a disproportionate demand on machinery and material, and, by retarding production where the total requirements approximated to the maximum output, rendered it impossible to provide all

that was required. Complete standardisation of pattern is, of course, impossible of realisation, but steps have been taken to limit to some extent the varieties of pattern demanded, and, in pursuance of this object, the specifications of the Allies, following those of the British Departments, have in many cases undergone important modifications. This is particularly the case in the woollen textile industry, where such modifications have simplified very considerably the application of the requisition system of purchase to the orders of Allied Governments.

The system of joint purchase has also been extended to certain raw materials obtained from abroad. Supplies of jute and jute goods for the Allies are now purchased under the arrangements mentioned. Italy is also obtaining Indian hides, of which she needs some 4,000,000 a year, by leaving the purchase in the hands of our Departments. Manila hemp for France is bought by us, and the Allied requirements of certain classes of foodstuffs are now purchased jointly. Conversely, British requirements of raffia are purchased on our behalf by France. As regards supplies of wool, the British Government in purchasing the Colonial clip provided supplies both for themselves and their Allies.

Generally speaking, it may be claimed that the system of joint purchase has effected considerable economies of money, labour and material; that it has revealed unsuspected capacity on the part of British industries and that it has diminished considerably the dependence of the Allies on neutral countries besides providing goods for the Allies on the same advantageous terms on which the British Government are supplied.

Summary.

The policy and action of the Government in 1917 have so extended and developed the movement which has been in progress since August, 1914, that at the end of the year it may be said that the whole industry of the country, production, transport and manufacture is more or less under State control. The degree of control varies from complete ownership, as with our national munition factories and national shipyards, down to the fixing of a maximum output such as in brewing, or as in the case of farming, the enforced transfer from private to public control in case of inefficient cultivation.

With production completely, and with distribution largely, under the finger of the State, in recent months the exigencies of war have forced the first step towards Government control of another great department of the people's life, namely, the regulation of consumption. The rationing of sugar is already in operation, and enforced rationing must be generally extended if a fair division amongst all classes of the limited supplies of customary food and necessaries of life is to be secured. Each step in State control has proved justified, both in the protection it has afforded to the nation and in the aid it has brought to the more effective prosecution of the war. With the demand

for every product of industry much in excess of the supply, the regulation and fixing of maximum prices by Act or by Order has been essential to the prevention of unreasonable inflation of prices to the injury of the general public.

In its effect on the war it has been the only means of concentrating the national activities on essential work, of meeting the present and prospective shortage of raw material, and of opening up, particularly at home, new sources of supply.

DEVELOPMENT OF OVERSEAS TRADE.

Prior to the war a considerable movement was in progress towards a closer co-operation between commercial men and the Government in the promotion of British trade overseas. This movement was backed by Chambers of Commerce and by trade associations representing particular trades and by leading men in every branch of commerce and finance. One conspicuous effect of the war has been to render even more evident the importance of closer relations between the Government and the commercial and industrial community, and to make each realise the extent of the assistance which they can afford to one another. The war has given rise to a need, quite novel in its force and intensity, for a greater measure of Government help to business, especially in the promotion of overseas trade. A vigorous interest has been shown by commercial bodies in the type of organisation best calculated to improve the governmental machinery for assisting trade by the supply of intelligence of all kinds on commercial matters. Much discussion has taken place as to how the overseas services—the Diplomatic and Consular services and the Trade Commissioner system—can best be strengthened and developed and as to the most suitable form of organisation in this country for bringing them into touch with the commercial world.

In the past this question has been dealt with by two departments—the Foreign Office and the Board of Trade. Both Departments have had under examination the question of the best form of organisation in the United Kingdom for directing the overseas services and distributing commercial intelligence obtained through them. They appointed jointly a committee to examine this question which, unfortunately, was unable to arrive at an unanimous decision. The committee, however, supplied data on which the Departments were subsequently enabled to devise a scheme which has received the sanction of the War Cabinet.

This scheme is briefly that the existing Commercial Intelligence Department should be remodelled and a new joint Department created. The Parliamentary control over it is to be exercised through a new Parliamentary Secretary who will occupy the position both of additional Parliamentary Secretary at the Board of Trade and of additional Parliamentary Under Secretary for Foreign Affairs and will be responsible to the President of

the Board of Trade for all matters within the competence of that Department and to the Secretary of State for Foreign Affairs for all matters concerning the Foreign Office. It is further provided that the work of the new Department shall comprise matters dealing generally with commercial intelligence, and that, so far as is necessary for that purpose, it shall give directions to the overseas services and make the necessary arrangements for keeping them in close touch with the commercial attachés from this country.

This joint Department has now been constituted under the title of Department of Overseas Trade (Development and Intelligence). It comprises the former Department of Commercial Intelligence of the Board of Trade, the War Trade Intelligence Department, and such portions of the work of the Foreign Office and the Foreign Trade Department as have been concerned with special trade functions. It will control the Trade Commissioner service within the Empire and the Commercial Attaché service in foreign countries. The general control of the consular service will also be handed over to it in due course when suitable arrangements can be made, and in the meantime it will direct the commercial work of consular officers. It is also provided that the Commercial and Consular Departments of the Foreign Office shall be under the new Under Secretary of State in charge of the joint Department so as to secure close correlation of the work.

The special duty of the new Department will be the promotion and development of British trade overseas. It will be the Department to which, it is hoped, business men will come, in the first instance, for assistance in the initiation of new enterprises or in the development of their existing interests. The larger questions of commercial policy will continue as in the past to be dealt with by the Board of Trade, while matters involving international relations or representations to the Governments of foreign States, will necessarily fall, as at present, within the sphere of the Foreign Office. But, apart from these two categories, there will remain a large field for the activities of the new Department. As has already been indicated, it will control and direct the overseas intelligence services which for the first time will be brought under an unified control, and will be constantly concerned with their improvement and development. Through these it will collect intelligence as to openings for British trade, the methods and degree of foreign competition, and generally as to economic and financial tendencies in overseas countries. From time to time it will despatch special missions to investigate matters requiring special technical or commercial knowledge. It will utilise the information so collected to induce merchants or manufacturers to develop their trade in suitable areas, and will endeavour to interest British finance in such matters, and to help in bringing about closer co-operation between finance and industry and commerce. In illustration of foreign competition the Department, through its officers overseas, will

collect samples of foreign competing goods, and will exhibit them in the industrial centres of the United Kingdom; and after the war will continue the work of the former International Exhibitions Branch of the Board of Trade in organising the British section of International Exhibitions and safeguarding the interests of British exhibitors. It will also continue the promotion of the British Industries Fairs instituted since the outbreak of war by the Board of Trade which, it is confidently expected, will assume far larger proportions when the many restrictions arising out of the war have been removed. It will be the special function of the Department to keep in the closest possible touch with the commercial community in this country, since in no other way can it effectually assist them or efficiently distribute the commercial information which it obtains from abroad. Similarly, it will arrange the necessary tours in this country for Commercial Attachés and Trade Commissioners when visiting the United Kingdom on duty, and will be a centre for maintaining the closest relations between the services abroad and the industrial and commercial community at home.

The organisation of the new Department, following generally the lines of the former Department of Commercial Intelligence of the Board of Trade, has been adapted to these functions. The Department has been divided up into three main divisions—the Overseas Division, the United Kingdom Division, and the Exhibitions Division. The Overseas Division will conduct all correspondence with the intelligence services abroad and will deal with enquiries respecting overseas trade. The United Kingdom Division will deal with enquiries relating to trade and manufactures in this country; and from its knowledge of industries and manufactures will advise the Overseas Division as to the requirements of British trade and as to the distribution of commercial intelligence, and will assist the Exhibitions Division in the organisation of fairs and exhibitions. The Exhibitions Division will be concerned, as its name indicates, with exhibitions and fairs. The two larger divisions—the Overseas Division and the United Kingdom Division—have been further divided into sections and sub-sections, which will enable officers to specialise, on the overseas side, in regard to groups of countries, and on the United Kingdom side, in regard to groups of industries. The object is to secure that in one part of the Department there should be officers who should make a special study of particular markets and in the other part, officers with special knowledge of particular trades. Through a close co-operation of these two divisions the Department should be able to secure the necessary knowledge of the needs of British trade and of the markets where that trade, it is hoped, will find its opportunities to expand.

INDUSTRIAL CONTROL IN THE OVERSEAS EMPIRE.

The Self-Governing Dominions.—Throughout the war the Dominions have done their utmost to place at the disposal of His Majesty's Government their resources in the way of raw

materials and to co-operate with the Home Government in all matters relating to the exportation of their products, with the dual object of preventing the enemy receiving supplies of which they are in need and of securing that the Allies receive the supplies of which they stand in need. All the Dominions have established prohibitions of exportation intended to secure these two objects.

The contribution to the allied cause in foodstuffs is dealt with in other pages; but in other directions also invaluable aid has been given by the Dominions. These include metals, coal, wool, hides, skins and material for the production of glycerine. In addition to material, railways, shipping, and every section of transport in all the Dominions has been concentrated on war work.

Of the metals found in the various parts of the British Empire, amongst the most necessary from the point of view of the production of war material is nickel, a commodity of which Germany stands in particular want. Canada produces almost eighty per cent. of the world's output of nickel. Another important mineral product is asbestos, of which about eighty to eighty-five per cent. of the world's consumption is provided by Canada.

Turning to Australia, the most notable action taken with regard to mineral products has been that designed to free the Australian base metal industry from German control. Before the war German firms had by means of long-date contracts obtained control over practically the whole output of Australian zinc, lead and copper for a considerable period of years. The bulk of Australian zinc concentrates were exported to and treated in Germany, leaving this country dependent on German firms for its supplies of spelter. The first act of the Commonwealth Government was to pass legislation determining all then existing contracts for zinc, lead and copper. This was followed by arrangements under which in future the bulk of Australian zinc concentrates will be treated in Australia and the United Kingdom and direct supplies to British manufacturers will be assured.

Another very valuable metal from the point of view of the manufacture of munitions, &c., is tungsten, which is required for the production of high speed steel. The Commonwealth Government has taken over the supplies of wolfram at a standard price, with a view to their being sent to this country to be dealt with by the Ministry of Munitions. Similar action has been taken by the New Zealand Government as regards scheelite, and by the Commonwealth Government as regards molybdenite. It may be mentioned in this connection that molybdenite is found also in Canada, and the Canadian Government is allowing its exportation only to the United Kingdom and Allied countries.

The mineral resources of the Union of South Africa of use in war, except gold and coal, have hitherto been little developed, but there are large deposits of copper producing ores in the

occupied territory of South-West Africa. These are being sent to the United States of America under arrangement that the smelted products are returned to this country.

The war has shown the importance of the control of coal whether supplied to ships as bunkers or exported as cargo. All the self-governing Dominions have adopted the policy in force in the United Kingdom by which bunker coal is supplied to neutral vessels only if their owners have subscribed to stringent conditions laid down for the protection of the Allies, or if they are actually engaged on voyages in the interests of the Allies.

Wool is a commodity which the enemy specially needs and which is greatly required in the United Kingdom and the Allied countries both for military and for civil purposes. From the earliest months of the war the Dominion Governments took steps to control exports of wool. During 1915 and 1916 exports of cross-bred wool (the type most required for military clothing) from Australia and New Zealand were almost confined to the United Kingdom and the Allies. In 1916 further measures became necessary, and arrangements have been made by which the British Government purchased the wool clips of Australia and New Zealand both for last season and for this.

Negotiations have been proceeding with the Government of the Union of South Africa, and while it has not been possible for the Government to secure the whole of the wool available in the Union, a substantial quantity of the present clip has been secured to them.

Arrangements have been made to send to this country from Australia, the Union of South Africa and New Zealand all surplus hides suitable for military purposes.

The demand for glycerine in the manufacture of explosives is large. It has been possible to obtain small supplies of glycerine from Australia, but more important are the materials from the use of which in the soap and candle-making trades, glycerine is derived. The chief of these obtained from the self-governing Dominions are tallow and whale oil. Tallow from Australia and New Zealand is allowed to be exported only to destinations within the British Empire and Allied countries. It has been possible to obtain a certain amount of whale oil from Australia, while the South African production is either sent to the United Kingdom or used locally for the production of glycerine, thus reducing the amount of glycerine which must otherwise be supplied from this country for the explosives required in the South African mines.

Special mention may be made of the value of the railway systems of the Oversea Dominions in the transport of troops and of war supplies.

In Eastern Canada particularly the lines have been in constant use for the carriage of men, equipment, munitions and produce of all kinds, whilst in South Africa there has been a great and

growing pressure on the railway system to supply coal for bunkering at the ports of the Union and to convey the materials needed for the use of the Imperial Government. In Canada, the last twelve months have witnessed a special effort to help with railway material. More than 450 miles of track have been lifted from one of the Transcontinental lines and brought over to Flanders for the construction of military railways. This has proved of the greatest value to the British Armies in the field.

Not only have the Dominions been able to assist so largely in the supply of raw materials during the war, but there have also been considerable industrial developments, which have placed at the disposal of the Empire further resources, notably, in munitions and ships. This development has been very marked in Canada, where a special board, the Imperial Munitions Board, has been set up under the Ministry of Munitions. Canada has supplied not only munitions and railway material, but also ships, both for naval and commercial purposes. There has been a similar development in Australia, which has been able to supply a certain quantity of munitions, whilst steps are being taken to increase the glycerine production of Australia, New Zealand and the Union of South Africa.

India.—To increase the contribution in material, a Munitions Board has been set up in India to organise, as far as was possible, the resources of the country. The effect of its operations will not be confined to the war, as they will make India more self-contained and less dependent on the outer world for supplies of manufactured goods. The activities of the Board growing rapidly along the lines originally planned now exceed in bulk those of most Government departments. Experience has demonstrated the inventive fertility of necessity, and success beyond expectation has already followed attempts to manufacture in India articles that formerly could be obtained only from abroad.

The Munitions Board have gathered together the hitherto isolated fragments of purchasing departments and have welded them into a single organised machine for the purpose of regulating contracts and amalgamating demands, thereby buying on a larger scale and preventing the competitive buying between various Government agencies which previously caused those disturbances of local markets that were neither good for Government nor for the commercial community. It was necessary at first to depend largely on existing official agencies, but with the foundations now laid it is hoped to obtain the co-operation of representatives of the non-official community in so far as this is consistent with their own competing commercial interests.

As an example of the activities of the Board, and as illustrating the way in which war necessity is being turned to account for industrial development, the case of the supply of hides may be taken. The simultaneous export of raw hides and raw tanning materials had often suggested to economists the desirability of developing the tanning industry in India. In order to meet the

War Office demand for leather, orders have been placed with Indian tanners on a scale that has encouraged them to reform their methods, and under the stimulus of a high standard of quality a striking improvement in their work has already taken place. In order to turn to fuller account the various natural tan stuffs of India the Munitions Board have taken over a tannery for experimental work, and the results are tested on a commercial scale in a large going concern purchased for that purpose. In co-operation with the Forest Department, the Munitions Board have organised the collection of materials that were shown by the experimental work to be promising tan-stuffs, and have arranged with the railway companies for their distribution at uniform and low rates of freight.

Arrangements have also been made for the supply from India to the United Kingdom and the Allies of sand-bags, raw jute, tanned and raw hides, manganese ore, mica, saltpetre, wolfram, wheat, shellac, wool, tea, beans, rice, pig-iron, magnetite, and grain for army horses. In most of these cases prices have been limited by Government action, and in many cases a special purchasing organisation has been established in India. In the case of wolfram, further efforts have been made to increase production.

The Colonies and Protectorates.—It would be almost impossible, even if it were prudent in present circumstances, to describe in detail the contributions of raw materials which have been made by the Colonies and Protectorates. Apart from the gifts of sugar and other produce made by the Colonial Legislatures to the people of the United Kingdom, the British Government has had at its disposal, for the purposes of the war, the whole of the produce of the Colonies and Protectorates, such, for instance, as the mahogany of British Honduras and the sea-island cotton crop of the West Indies, the palm kernels of West Africa, the hides and sisal of East Africa, and the rubber and rare minerals of the Eastern Colonies.

As the war has advanced the strain on the self-governing Dominions, on India, and on the Colonies and Protectorates has grown continually heavier. But their Governments and peoples have met every call, and have cheerfully acquiesced in the dislocation of their home and foreign trade, and in the interference with the relations with neutrals which the needs of the Allies and the blockade of the enemy have involved.

CHAPTER XIV.

FOOD.**Food Production in the United Kingdom.**

The poor harvest of 1916, with the low condition to which our stocks of cereals had fallen, made it evident that the problem of the food supply of the United Kingdom would become acute in 1917. Other factors also seriously affected the situation. In 1915, partly in response to the appeal for increased production, there had been an increase of 430,000 acres in the area of wheat and 280,000 acres in oats, though this increase was to a large extent offset by a decrease of 350,000 acres in the area of barley and of 75,000 acres in other corn crops; there had also been a slight increase in the area of potatoes. In 1916, on the other hand, the area of wheat had fallen back by about 280,000 acres. The yield of the crop had been considerably below the average, and, owing to the increasing shortage of labour, the outlook for 1917 was serious. It was estimated at the close of 1916 that the area sown with winter wheat, which represents by far the greater part of the crop, was fifteen per cent. less than in the preceding year. Further, the potato crop for 1916 had proved to be one of the worst on record, and the shortage in this very important article of food was already making itself felt. The Cabinet, therefore, decided immediately that vigorous action must be taken to secure, if possible, an increased area under cereals and potatoes in 1917, and to provide for a programme in 1918 which would make the nation to a greater degree self-supporting in respect of cereal foodstuffs. In view of the shortage of labour it was recognised that this undertaking presented very great difficulty. In the five years preceding the outbreak of war this country had imported 80 per cent. of its wheat and wheat flour as well as large quantities of oats, barley and maize; altogether, of the total cereal requirements of this country, over 60 per cent. was imported during the five years 1910-14.

Corn Production Act.

In dealing with the situation the first essential was to strengthen and confirm the confidence of the farmer. The experience of the agricultural depression in the eighties and nineties, which had led to the heavy decline in the tillage area, made farmers hesitate to undertake the breaking up of land. There was on the one hand the growing scarcity of labour and the rise in costs of production, and on the other hand there was the natural fear that sooner or later cereal prices might come

tumbling down. It was therefore necessary, if a considerable tillage area was to be secured in 1917 and in the subsequent years, to give the farmer guarantees of security. With this object in view the Cabinet, in December, 1916, decided that prices for wheat, oats and potatoes in 1917 should be guaranteed to the farmer, the same guarantee applying to all parts of the United Kingdom. This policy was subsequently more fully developed in the Corn Production Bill with a view to laying down a policy which would make the country more secure, not only in 1918 but in the succeeding years. As in the case of munitions, so in the case of food it was felt to be necessary to ensure against the risks of a prolonged war. The Corn Production Bill, subsequently approved by Parliament, by securing to the farmer minimum prices for wheat and oats for a period of five years, by providing a minimum wage for the agricultural labourer, and by securing powers of entry upon land and requirement of better cultivation where the Board of Agriculture were satisfied that this was desirable in the national interest, laid the foundations of the new policy and programme of agricultural development.

Local War Agricultural Committees.

The principles of this policy having been announced, the Board of Agriculture for England and Wales, the Board of Agriculture for Scotland and the Irish Department of Agriculture and Technical Instruction set to work to reorganise and extend the machinery for assisting farmers in the task of carrying out the programme of increased tillage. It was necessary alike to develop local and central machinery, but with the extended programme it became more important than ever to provide for greater decentralisation. At an early stage in the war the Board of Agriculture for England and Wales and the Board of Agriculture for Scotland had set up War Agricultural Committees; in the case of Ireland the existing statutory County Council Committees on Agriculture were available for the campaign of increased production. Experience had shown, however, that in England and Scotland these War Agricultural Committees had not sufficient powers to carry out an effective campaign for greater production. Accordingly one of the first steps taken was to set up in every county in Great Britain small War Agricultural Executive Committees of not more than seven members appointed by the War Agricultural Committee of the County, together with such additional members as the Board of Agriculture might appoint. With certain reservations the exercise of the special war powers entrusted to the Board of Agriculture was conferred on these Executive Committees in their respective areas. These Committees, which are known as the County Agricultural Executive Committees, have appointed special Sub-Committees to deal with certain branches of their work, such as labour, machinery, supplies and finance. In addition, in each district of the county, a District Committee has been established to act as an advisory body to the Executive Committee, and in many counties parish

representatives have been appointed to keep the Executive Committees in touch with each parish in the county. The Central Department has appointed District Commissioners in charge of two or more counties who are *ex officio* members of the Executive Committees, and who act as links between the Central Department and the Committee. Each Executive Committee has its own proper staff and in many counties considerable assistance has been received from the County Councils who have placed their officers at the disposal of the Executive Committees, while, throughout the country, valuable help has also been received from the staff of the Land Valuation Department and the Inland Revenue. The County Agricultural Executive Committees report to the Central Department on the state and progress of cultivation in their counties and frame estimates as to the possible areas of increased cultivation. They are also charged with the work of preparing estimates of requirements of labour, machinery, fertilisers, seeds, &c., and the successful carrying out of the extended programme is in great measure due to the voluntary and hearty co-operation given by members of these Committees.

The Food Production Department.

At the same time steps were taken to increase the machinery of the Central Departments in order to deal with the new situation. The President of the Board of Agriculture for England and Wales appointed an Advisory Committee on Food Production and a special Food Production Department was established in January, 1917; in Scotland and also in Ireland special Advisory Committees to the Central Departments were appointed.

The first problem was to form an estimate as to the additional area which could be brought under tillage in the Spring of 1917. A rapid survey was made in February and March for this purpose. The survey was carried out by the County Agricultural Executive Committees in England and Wales and in Scotland, and on the basis of these reports it was estimated that in England and Wales an additional area of 300,000 acres, and in Scotland of 50,000 acres, might be secured. Under the Defence of the Realm Regulations the Board of Agriculture for England and Wales, and the Board of Agriculture for Scotland, had been given powers to enforce cultivation where they considered that the land was not being properly tilled, and these powers, with certain exceptions, have been delegated to the County Agricultural Executive Committees. Acting under these Orders, the Committees can serve notices on occupiers requiring them to cultivate their land in such a manner as the Committees think necessary or, where no improvement takes place as a result of warning, the Committee may take possession of whole or part of the farm and either cultivate it or let it to new tenants. The Board of Agriculture have also the power to determine forthwith the tenancy of any land which is being badly farmed. All these powers have been exercised, but in the main the increase in tillage in England and Wales and in Scotland has been obtained by voluntary appeal to farmers. In the case of the 1918 programme, however, which provides for an increase in the arable area over 1916 of 2,700,000

acres in England and Wales and 350,000 acres in Scotland; the Boards of Agriculture have allocated a quota of this amount to each County Agricultural Executive Committee which is empowered to serve notices upon farmers in its area calling upon them to provide a certain amount of additional tillage. The Committees have been engaged in carrying out a detailed survey, in order to apportion their quota amongst different farms, to schedule grass land which might with advantage be ploughed up, to secure an increased area of corn, roots and potatoes on the existing arable land, and to ascertain any land which is not being cultivated by the present occupiers. In Ireland a different procedure was adopted. The Department of Agriculture and Technical Instruction, by an Order in Council of January, 1917, required all agricultural holders of over 10 acres to increase their arable area in 1917 by 10 per cent., except where the arable area on any farm already amounted to 50 per cent. of the total area suitable for arable cultivation. With regard to 1918 it is proposed that the additional area to be tilled shall be an increase of 15 per cent. on the 1916 area, and of a further 5 per cent. increase in the case of farms having 200 acres or more of arable land.

Steps were also taken to survey areas of land where production could be improved by drainage. In almost every county there are thousands of acres which might be used for agricultural production if properly drained, and in England and Wales nearly 100,000 acres have been inspected and reported on, and several schemes have been put in operation which would secure an immediate improvement in the land for tillage purposes. In Scotland, also, a survey was made of deer forests with a view to re-stocking tracts of land with sheep.

Apart from increasing production on agricultural land, important developments have taken place in providing land for allotments. Under the Defence of the Realm Regulations powers have been delegated to Town and Urban District Councils enabling them to take possession of any unoccupied land and, with the sanction of the Agricultural Executive Committees, of any occupied land for the purpose of letting it as allotments to the residents in urban areas, who can cultivate it in their spare time. Complete statistics of allotments are not available, but in England and Wales alone, up to 31st December, 1917, reports from 1,095 Urban Districts show that 185,147 plots have been provided; in Scotland there are returns of close on 20,000, and in Ireland of 12,000, allotments. But these statistics do not include the rural districts and by no means include all allotments in urban districts. A complete register is being taken in hand. The tenure of plots has been extended until the 1st of January, 1919, and the enthusiasm displayed in the movement, and the taste for gardening which it has fostered in a large section of the urban population, make it certain that further measures will have to be taken to meet the increasing demand for allotment land.

Apart from the question of the provision of land, the main problems before the Central Departments have been :—

- (a) To secure an adequate supply of labour.

- (b) To mobilise and increase the supply of horses and agricultural machinery.
- (c) To secure the supply and distribution of fertilisers.
- (d) To secure seed and requirements of which there was a shortage.

Labour.

(a) The first great problem was the provision of agricultural labour. In July, 1914, it was estimated that in Great Britain the number of men employed in agriculture was 800,000, while the number of women was 80,000. In addition, it was estimated that 120,000 men and 50,000 women were employed on casual agricultural labour in Great Britain. By January, 1917, the number of men employed in agriculture had fallen to 562,000. At the same time the call for men for the Army had become more insistent, and as there remained in agriculture 177,000 men of military age and 118,000 under 18 years of age, it appeared that large numbers would have to be released to the Army. Further, enquiry had brought out the fact that the system of voluntary recruiting on the one hand, and the action of local tribunals on the other, had resulted in an unequal distribution of farm labour. So far as was possible efforts were made to rectify this inequality by limiting the demands of the War Office to particular areas. Owing, however, to the urgency of reserving labour for carrying out the extended tillage programme, it was finally decided in June, 1917, that no agricultural labour might be recruited in Great Britain by the War Office except with the consent of the Agricultural Executive Committees in England and Wales or of the Board of Agriculture for Scotland. Meanwhile, the War Office had taken steps to assist the Boards of Agriculture in England and Scotland by placing at the disposal of the Executive Committees a considerable number of skilled ploughmen and a still larger number of unskilled workers. In the spring of 1917, 21,000 ploughmen and 19,000 other labourers were lent for agricultural work in England and Wales. The bulk of the skilled ploughmen were lent only for eight weeks, but their assistance proved invaluable in carrying out the spring tillage. In Scotland also 1,850 men were loaned from the Army to assist in the spring cultivation. During the year, also, the War Office have provided labour to assist at the hay and corn harvests, and close on 40,000 men have been made available in England and Wales and 3,000 in Scotland. The War Cabinet, also, decided at the end of June that provision should be made during the summer for the release of an increased number of men for agricultural operations during the season of 1917-18, viz., 25,000 men experienced in agriculture or used to horses, and 25,000 unskilled men. Up to the middle of December about 35,000 men had been made available.

In addition to the supply of military labour, special efforts were made to secure the help of women as workers on the land. An active recruiting campaign was undertaken, and provision was made for the training of workers by means of short courses at

colleges, institutes, and on the farms. Complete returns of the number of women employed in agriculture are not available, but it is estimated that 270,000 women are now employed on farm work, as permanent or temporary hands. This expansion is largely due to the work of the voluntary organisation of the Women's War Agricultural Committees, Village Registrars and District representatives, and has been greatly helped by the appointment of group leaders with technical knowledge, who have organised gangs of part-time village workers all over England. Altogether, an additional 140,000 women have been enrolled in agriculture since the outbreak of war, and efforts are being made to increase the employment of women on the land. The position has thus undergone very considerable change, and women have proved in farm work, as in munitions and in many other occupations, how great is the service they can render to their country in war time. Squads, also, of boy labour from public and secondary schools of the country were organised in vacation and have contributed to the successful results of last summer. In addition to these supplies of home labour, 4,500 German prisoners have been employed in connection with agricultural work.

Machinery.

(b) The second requirement for the programme of increased tillage was the provision of additional mechanical power for the service of agriculture as well as an increase in the number of horses. Steps were promptly taken to mobilise the existing supply of tractors and steam ploughs and to provide for an increased supply at the earliest possible date. This task was the more difficult because, on the one hand, almost all the agricultural implement makers had been engaged on the manufacture of munitions, while, on the other hand, the importing capacity from America was limited. The suitability of different types of tractors was carefully tested, and finally it was decided to concentrate the main effort on the production of the Ford tractor, the specifications for which were generously placed by Mr. Henry Ford, of Detroit, at the disposal of the Government. It had been intended originally to manufacture these tractors in the United Kingdom, but, owing to difficulties which arose, it was decided that it would secure more speedy delivery to have them made and shipped from the United States. The delivery of these tractors commenced in January, 1918, and by the spring it is expected that 4,000 will be available for tillage operations in the United Kingdom. Orders have also been given for other makes of tractors, and, if these are fulfilled, over 7,000 Government controlled tractors of one type or another, with ploughs and other tractor implements, should be available to assist in work for the 1918 harvest in Great Britain and Ireland. Another important factor is the use of steam ploughing tackle. Owing to difficulties of labour and lack of repairing facilities, the steam ploughing tackle in this country at the beginning of 1917 was not being used nearly as effectively as it should have been. These difficulties have been largely overcome by the release from the Army of men expe-

rienced in steam tackle-work and by arrangements for repairs, so that at present all the sets of tackle in this country are being put to effective use. Already, by the beginning of October, the efficiency of the steam ploughing plant, as measured by work done, had increased by 65 per cent. over what it had been in the period of spring tillage. Arrangements have also been made through the Ministry of Munitions for as many new sets as possible to be made in this country, and it is expected that over 60 new sets will be available in time for the spring ploughing. In addition to the above supplies, orders have been placed for considerable quantities of horse-drawn implements, both for cultivation and harvesting, and arrangements have been made, not only to guard against a depletion of the existing supply of agricultural horses, but to purchase an additional 20,000 horses, which, with the increased supply of ploughmen, will be urgently required to carry out the increased tillage programme during the winter and spring months.

It should be stated that the supply and production of tractors, steam plough tackle and other agricultural machinery are vested in the Ministry of Munitions, but the allocation and distribution of machinery in England, Scotland and Ireland remain with the respective Departments of Agriculture. It is not too much to say that the developments which are being pushed forward in the application of motor power to farm work will have a far-reaching effect on the future of British agriculture.

Fertilisers.

(c) A third and different problem was presented in the case of fertilisers. The position in 1916 was briefly as follows: The supply of potash, for which we have depended on the rich deposits in Germany, had been cut off. The usual quantity of sulphate of ammonia was available—a large amount, however, as in former years, being exported, but only small supplies of Chili nitrates had been forthcoming. With regard to phosphatic manures there was a considerable amount of basic slag available from the steel works, but additional grinding machinery was required; in the case of superphosphate, the supply was limited by the munitions demands for sulphuric acid.

In view of the need of increased food production, it was highly important that supplies should be wherever possible increased. Steps had been taken by the Boards of Agriculture to develop some of the native stores of potash, but the amount so obtainable was very limited. Fortunately investigation has revealed the practicability of recovering considerable supplies of potash from flue dust, and a limited quantity of potash will be recovered in time for use with the 1918 crop, while it is hoped to secure a greatly increased supply for the 1919 crop. As regards sulphate of ammonia, owing to active propaganda among farmers for an increased use of this fertiliser, the consumption has risen from 78,000 tons in 1916 to close on 180,000 tons in 1917. Exports have been prohibited so that as far as possible the whole output might be available for food production and munition manu-

facture in the United Kingdom. In the case of phosphatic manures returns obtained in the spring of 1917 from the manufacturers showed that while some firms had supplies of acid, they were short of phosphate rock, and *vice versa*. Steps were accordingly taken to pool supplies with a view to more immediate production. At present the shortage of phosphate rock, owing to tonnage demands, is the limiting factor, but every effort is being made by the Shipping Controller to maintain supplies. On the other hand, there will be an increased supply available of basic slag, additional labour and grinding machinery having been secured. The manufacture of fertilisers was taken over early in the year by the Ministry of Munitions, and the Fertilisers Works have been made Controlled Establishments. Attention has also been directed to the more economic distribution of fertilisers, and the Boards of Agriculture and the County Agricultural Executive Committees are endeavouring to secure the most advantageous distribution of available supplies. The prices of fertilisers have been fixed, and the farmer has in this way been secured against a further rise in the cost of production on this account.

Seeds.

(d) The provision of a proper supply of seeds and the control of prices have proved also matters of considerable importance. To insure against the possible shortage of seed wheat for sowing in the autumn of 1917 in the event of unfavourable harvest conditions, the Food Production Department secured a reserve of about 5,000 quarters of wheat of the 1916 crop. The Department also purchased and offered to farmers through the Agricultural Executive Committees 25,000 quarters of seed wheat of heavy cropping varieties and of high purity for autumn sowing in 1917. During the spring the greatest difficulty was encountered in obtaining seed potatoes. The serious shortage of the potato crop in Scotland and Ireland, from which seed potatoes are chiefly obtained, and the increased acreage of potatoes about to be planted especially in Ireland, made it necessary to organise supplies, particularly for the small growers and allotment holders. The action of the Food Production Department in securing 15,500 tons for distribution through the War Agricultural Executive Committees was of great assistance to the allotments in a critical season. For 1918 steps have been taken to provide 10,000 tons of immune varieties for districts affected with wart disease, to provide not less than 10,000 tons of non-immune varieties for small growers in other districts, and to arrange for the planting with immune varieties of 1,000 acres in Scotland and Ireland in order to furnish seed for infected areas in 1919. Reference may also be made here to the vigorous campaign which was carried on by the Departments of Agriculture in all parts of the United Kingdom for the spraying of potatoes against blight. This campaign undoubtedly resulted in a considerable extension of the sprayed area and contributed to the healthy condition of the 1917 crop. Arrangements are being made for a still more extensive campaign in 1918.

Acreage and Crops.

Attention having been drawn to the main factors in the Agricultural Programme of 1917, the results, as represented in the acreage and produce of crops may be briefly stated. In doing so, however, it is necessary to bear in mind the different positions respectively in England and Wales, Scotland and Ireland. Since 1870 in England and Wales the area under arable land has fallen by 3,800,000 acres; in Scotland by 200,000 acres; and in Ireland by 600,000 acres. The shrinkage in the tillage area has thus been considerably less marked in Scotland than in either England or Ireland, the tillage area being less capable of expansion in Scotland. Further, the greater supply of agricultural labour available in Ireland must be kept in mind, and there is also the important fact that the Compulsory Tillage Order in Ireland led to a much greater immediate extension in the tillage area. Over 648,000 acres have been added in Ireland; in Scotland an increase of 50,000 acres has been realised, and in England and Wales 286,000 acres. Thus altogether in the United Kingdom the tillage area in 1917 has been increased by nearly one million acres. In considering the results of the 1917 campaign, however, it should be borne in mind that the evidence at the end of 1916 pointed to a fall in the area under crops in the coming season. Thus the effect of the campaign has to be judged, not only by the actual increase realised, but by the fact that a decline in the tillage area had been checked.

Considered in greater detail, the returns of acreage of crops in the United Kingdom for 1917 show an increase of 50,000 acres in wheat, of 140,000 acres in barley, of 616,000 acres in oats and of 220,000 acres of potatoes. The area under oats in 1917—4,761,000 acres—is the highest acreage on record in the United Kingdom, while the acreage under potatoes is the largest since the year 1889. In this connection it may be mentioned that the Board of Agriculture early in the season took steps to restrict the area of certain less essential crops, such as mustard, &c., and required growers of hops to reduce their area to 50 per cent. of that grown in 1916, and to plant the area with potatoes or other crops, the produce of which was of greater value for the national food supply.

It is estimated that the yield of wheat exceeds that of 1916 by 600,000 quarters, of barley by 600,000 quarters, and of oats by over 4,500,000 quarters. In potatoes, where the season was exceedingly favourable for the crop, despite the shortage of potash, the yield is one of the highest on record—the total crop exceeding that of 1916 by at least 3,000,000 tons, and the average crop of the preceding 10 years by 2,000,000 tons. Altogether it may be said that the tillage campaign resulted in the addition of not less than 600,000 tons of cereal food and one and a half million tons of potatoes on agricultural land. In addition there has been an important increase in the food resources of the country through the great extension of allotments. The value of these small sources of family supply is of the greatest importance at a time of scarcity and high prices. The produce gained from the

allotments is, on the whole, very high per acre, and it is most desirable that this movement should greatly increase as contributing permanently to national health and well being.

In surveying the campaign for increased production in 1917, it may be said that the results have given much ground for solid satisfaction and afford good reasons for hope in the future. Nothing has been more striking than the general efficiency and whole-hearted loyalty of the War Agricultural Executive Committees throughout the country in carrying out their novel and heavy duties, and it is no exaggeration to say that these committees have succeeded in raising the whole standard of farming and in creating a strong public opinion against the neglect or misuse of land which might be producing food for the nation. The following passage from a recent Report of the Director-General of Food Production may be fittingly quoted :—

“ The Committees report their proceedings each week to the Department, and the picture they give of the agricultural conditions of their counties shows that large parts of rural England had sunk into a veritable slough of despond. Case after case was reported of considerable areas of land which, having at one time produced good crops, are either entirely given up to sport, allowed to become derelict or farmed in the most careless and negligent manner. Many of the worst cases are those of occupying owners who do not depend on the production of the land for their livelihood, and for whom there is no excuse on the ground of lack of the necessary capital. In other cases, however, farmers have been allowed to obtain possession of far more land than they are able to cultivate adequately with the capital at their disposal, and in some parts of the country there are large areas which formerly supported a considerable population, where the houses and buildings have been allowed to fall into ruin and the land has been used merely as extensive sheep or cattle ranches. Wherever possible such places are being dealt with by the Committees, but many of them will require considerable expenditure on new houses and buildings, on road-making, drainage and fencing before the land can be made to produce what it should, and such works on any large scale are impracticable during the war.

“ The result of the short campaign in the spring was successful beyond expectations, especially when it is remembered that the weather was abnormally unfavourable for ploughing. The results of the efforts for the 1918 harvest can be, and will be, equally successful, if only the energy which was thrown into the short campaign in the spring is sustained by everyone concerned until the last day for sowing crops for next year's harvest. What is needed most at the present moment is the renewal of enthusiasm and energy.”

CHAPTER XIV.—*continued.***FOOD CONTROL.**

PRELIMINARY MEASURES.—Upon the outbreak of war, the Government set up a Cabinet Committee on Food Supplies to collect information in respect to stocks of the chief commodities. Particular attention was paid to the state of the nation's corn supplies, and step by step the work of controlling imports of wheat was taken over by the Government. In October, 1916, the Royal Commission on Wheat Supplies was appointed. This body assumed complete control of imported wheat and regulated the prices at which this wheat was sold to the millers. In the first week of the war also the Government arranged to exercise control over the imports of sugar—the Royal Commission on the Sugar Supply being appointed in the same month to make the necessary purchases and to regulate distribution. At an early date in the war the Board of Trade undertook control of the imports of chilled and frozen meat so far as Army requirements were concerned. In the autumn of 1916 the Board of Trade also took steps to regulate the price of winter milk, fixing the maximum increase of 2*d.* per quart over the price in November, 1914. Regulations were also made in October by the Board of Trade with a view to securing economy in the serving of meals in restaurants and clubs.

These were the main steps which had been taken in dealing with the problem up to the time when the need of a much greater measure of Government intervention and control became apparent. In October, 1916, an announcement was made in Parliament that a Food Controller would be appointed. No appointment, however, was made at this time, and the duties of controlling the imported supplies and regulating the distribution of food within the United Kingdom remained with the Board of Trade.

On taking up office, the present Government decided to proceed forthwith to the establishment of a Ministry of Food and the appointment of a Food Controller. On December 22nd, 1916, the Act was passed establishing a Ministry of Food, and, on the 26th, Lord Devonport entered upon his office. The Act declared the new Ministry to be constituted for the purpose of "economising and maintaining the food supply of the country," and empowered the Food Controller to "regulate the supply and consumption of food and to take such steps as he thought best for encouraging the production of food." It being the special function of the Agricultural Departments to stimulate home production of crops and livestock and livestock produce, it was arranged that the Food Controller should consult with those

Departments before the issue of Orders relating to the control of agricultural supplies and prices in this country. The jurisdiction of the Food Controller applied to the United Kingdom, whereas there were separate and independent Boards of Agriculture for England and Wales, Scotland and Ireland.

The Ministry of Food.

The difficulties which have confronted Lord Devonport, and later Lord Rhondda, who, upon the resignation of the former, became Food Controller on June 15th, 1917, are complex and far-reaching. As the war progresses they become more and more acute, and there is little indication that even peace will provide their solution or lead very quickly to the restoration of normal conditions. To make the problems which faced, and still face, the Ministry of Food clearer they will be dealt with under the three headings of Supply, Distribution and Price.

PROBLEMS OF SUPPLY.—The reduced productivity of the land in consequence of the diversion of man-power to war or munition work, combined with the partial failure of the 1916-1917 winter wheat harvests, made it apparent that there would be a world shortage in the staple foods, while supplies from the more distant markets could only be made available to a limited extent in view of the importance of securing the most economical use of shipping tonnage. By August, 1917, the situation had become so critical that Mr. Hoover, the United States Food Administrator, in an official statement, estimated that the harvests of the European Allies would fall short of the normal production by at least 500,000,000 bushels of grain; that, owing to the greater demand for meat and animal products for the subsistence of populations engaged in heavy war work, coupled with an inadequate world supply, the Allies had been compelled to kill upwards of 33,000,000 head of their stock animals, thus greatly reducing their annual production; and that France and Italy, who formerly produced their own sugar, were only able to produce one-third, while Great Britain, previously a large importer from Germany, was naturally compelled to find her sugar, and the shipping for it, in other parts of the world.

Great Britain, by reason of her insular position, was severely hit by this world situation. The normal supplies from Russia had long ceased to be available; the usual imports of bacon, butter and margarine from Holland and Scandinavia dwindled and dwindled until to-day these imports have well-nigh reached the vanishing point.

When the Ministry of Food came into existence there was no reserve of any appreciable kind in many of the principal food-stuffs. Three months after Lord Devonport took office there was immediately available only about nine weeks' supply of wheat and flour in the country, with the added prospect, which

was subsequently realised, of a serious potato shortage. Towards the end of 1917 the position had so greatly improved that, to assist in meeting the diminution of French and Italian production, this country was able to divert cereal imports and tonnage to both these Allies. The ceaseless activities of the Boards of Agriculture and the Food Production Department have steadily effected a useful reduction of the inevitable food deficit, but it was, and is, out of the question to endeavour to maintain the livestock in the country at the normal or pre-war figures owing to the shortage of feeding stuffs and fodder and the greatly increased demand due to the practical cessation of imports of meat for civilian consumption. The reduction in tonnage renders it imperative that shipping shall only be utilised for the most concentrated of foods, and shipping economy greatly restricts the import of feeding stuffs for animals. In April, 1917, the stocks of sugar fell to less than ten days' supply. The food position was also seriously affected by the extremely bad lambing season.

No mention has been made of the problem of finance, which has throughout rendered more difficult every question of import, but a mere narration of the facts gives some general idea of the difficulties in connection with supply with which the Ministry have been and are confronted. The steps to overcome them will be found on a later page.

PROBLEMS OF DISTRIBUTION.—The bald fact that, except in the case of sugar, no machinery of any kind existed prior to the formation of the Ministry for the distribution, under Government supervision or Government control, of foodstuffs to the consumer is sufficient to emphasise the problems that have been and are now being solved. The desirability of imposing no greater measure of restrictions than was absolutely essential upon a democratic population that by voluntary sacrifice supported the war was always kept well in mind, but not to the exclusion of the necessity of food distribution through compulsory rationing, if that proved unavoidable. As early as May, 1917, alternative plans of rationing were considered, but it was decided that the emergency did not then justify such drastic action. The problem of distribution, with its various phases, such as degrees of compulsory rationing of the consumer, transportation, cold storage, and decentralisation as opposed to centralisation, was all the more difficult because in no country has there yet been devised any sound plan of distribution. The German and Austrian "iron-clad" systems of making the depleted supplies go round by means of individual ration coupons had failed to eliminate those inequalities from which the demand or the necessity for compulsory rationing arises. Mr. Hoover's plan of rationing Belgium has, undoubtedly, proved by far the most successful of all thoroughly tried schemes, but, as Mr. Hoover was the first to admit, the conditions in occupied Belgium are vastly different from those in the United Kingdom, where the population are, fortunately, not under the military rule of a merciless invader and where the necessity is not

merely to keep the people alive but so to feed them as to ensure the maximum of war efficiency. Moreover, we have in the United Kingdom a large moving population, as well as a multiplicity of small shops. It has been calculated that there are 10,000 multiple shops and 5,000 co-operative shops, as compared with 70,000 small general shops and 15,000 individual grocers, and that no less than 24,000,000 of people are supplied through the small general shops, which, in themselves, present a problem of co-ordination of distribution.

There was added another complexity by reason of the depletion of available man-power in this country, not merely in the normal trade channels, but also in those Governmental and Local Authority circles to which any far-reaching rationing scheme must look for machinery and support. As the food clearing house and munition producer for our European Allies we have, probably, sustained a greater drain upon our man-power than any other country, even though it is not visible in purely military statistics.

The endeavours to meet these various difficulties in distribution are dealt with later.

PROBLEMS OF PRICE.—The war and the upheavals that have followed in its wake have disorganised all the economic factors that ordinarily determine prices. The Ministry of Food have been faced with world prices constantly soaring on an inflated currency and a concurrent decreased world supply as compared with increased demand. It has always been recognised as axiomatic that it is very dangerous to endeavour to control the price of any commodity until it is possible also to control the supply. The Lever Act, by which Mr. Hoover obtained legislative powers as American Food Controller, did not come into force until August 10th, 1917, and until then it was patently impossible for him to co-operate in any plan for stabilising the price of a very large part of this country's imported food supplies. Mr. Hanna, the Canadian Food Controller, was not appointed until June 19th, 1917. It must be borne in mind that the prices of most of our essential imported foods had more than doubled since the war with a consequent rise in price of home-produced foodstuffs. It must also be remembered that until Mr. Hoover took office the European Allies and even various departments of the same Allied Governments were buying foodstuffs against each other in the American and other markets, with the inevitable result of causing prices to rise still higher.

The staple foods, with the exception of sugar, threatened to reach such a price in the United Kingdom as to put them out of reach of the poorer consumers. Quite naturally there arose considerable unrest among the consuming public and a demand for price control and the elimination of all possibility of profiteering and speculation in the nation's food. To meet this demand without any definite idea as to what price regulations might be imposed in the markets from which the bulk of our

essential foods is obtained was no easy matter. It was rendered still more difficult by the ever-present danger of disorganising existing agencies of food supply and food distribution, and thereby curtailing production and accentuating an existing shortage. Then, again, rose that most debatable of questions as to what constitutes a fair producing and trading profit during a war which threatens continuity of trading, involves enormously increased taxation, creates insecurity of capital, and greatly enhances the cost of production and labour.

Just as the number of small general food shops made the problem of distribution more complex, so did the multiplicity of legitimate middlemen, importers, brokers, wholesalers, and jobbers combine to complicate the question of fixing food prices. It was obviously impossible to "wipe them off the map," as was suggested in various quarters, unless the Ministry of Food had at its disposal the man power to set up a substitute machinery. Moreover, the fixing of prices removes the main force which under normal conditions brings supply and demand into harmony. The solution of the price question and the steps that have been taken to abolish profiteering and speculation in food will be found under a subsequent heading.

Measures taken by the Ministry of Food to solve the problems of Supply, Conservation, Distribution and Price.

(a) SUPPLY.

To explain more clearly the various stages by which the Ministry is endeavouring to attain effective Food Control, a note on "Food Conservation" is added to this category of action taken. It is, in reality, part of the question of supply, just as is the work of the Food Production Department; otherwise the same order is followed as in the summary of Problems.

The most important development in regard to supply since the formation of the Ministry of Food has been the establishment of the Inter-Ally Council on War Purchase and Finance. The existence of this body now enables the food requirements of France, Italy and the United Kingdom and the finance and tonnage therefor, to be presented in co-ordinated and agreed form to the principal source of supplies and finance, namely, the United States. The necessity of some such co-ordination requires no elaboration when it is recalled that about sixty-five per cent. of our essential food supplies come from the North American Continent. Without a system of centralised Allied purchasing it would have been quite hopeless to attempt to control either price or distribution.

The Inter-Ally Council is the apex of a complex structure which, almost unnoticed, has effected an unparalleled economic revolution by transferring the import of all foodstuffs from private hands into Government control. With a few exceptions all the food now imported into the United Kingdom—or into

France and Italy—is actually purchased and shipped by the respective Governments through the media of specially constituted Boards. These are the logical developments of the Wheat Commission and the Wheat Executive which were set up prior to the formation of the Ministry of Food but are now associated with it. As in the case of the original Wheat Executive, it is right to say that while the Allied representatives take active part in arriving at conclusions and determining requirements, the greater part of the administrative and executive work is done for all three Allies in London by the Ministry of Food and its affiliated Commissions.

What may be termed the “overhead” machinery of supply hinges mainly upon inter-allied or partially inter-allied bodies, viz., the Wheat Executive, the Sugar Commission, and the Meats and Fats Executive, to which it is proposed to add the Oil and Seed Executive. All these bodies have their headquarters in London. The method of their procedure, though it naturally varies according to the commodity dealt with, is well indicated by the following memorandum from the Meats and Fats Executive :—

(1) The Inter-Allied Meat and Fats Executive, which sits in London, consists of one British, one French, and one Italian representative. This body collects the monthly requirements of the three Allied countries. In the event of the available supplies being insufficient to cover the requirements, the Executive determines what reductions shall be made, allocates the available quantities between the three Allied countries and cables the orders to purchase to

(2) The Allied Provisions Export Commission, sitting in New York, consisting also of British, French and Italian representatives under the chairmanship of one of the British representatives. This body is the sole agency through which foodstuffs, except cereals and sugar, can be purchased in America; and it receives its purchasing instructions from the Inter-Allied Meat and Fats Executive only. If the United States Food Administration sanctions the purchase proposals, the Commission arranges the details as to time of purchase and makes bids and clinches bargains on behalf of each Ally. The contracts are actually signed and the arrangements for shipping are made by the representative of the Ally concerned. In the case of fresh meat and packing house products, however, the Commission passes on the monthly statements of Allied requirements to

(3) The Division of Co-ordination of Purchase, an American body, which each month fixes prices that are “fair and just,” tabulates the demands of the Allies, allots such supplies as are available, and notifies them to

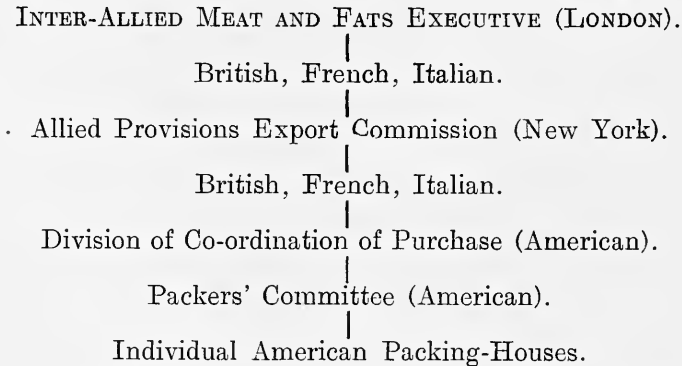
(4) The Packers’ Committee, another American body, which allots the purchasers’ requirements among the packing houses. After allotments are made among, and accepted by, the packers,

the quantities covering the approved requirements of each Ally are tendered to each Ally through the Division of Co-ordination of Purchase. Such tenders are for immediate acceptance or rejection by the Ally concerned. The actual contracts are executed by the authorised representative of each Ally with the packers. The representative on the Commission of the Ally concerned arranges details of shipping, &c.

The general principle followed is that all purchases on behalf of the Allies are determined by a single body in London and carried out through a single body in New York. Purchases on behalf of Belgium, Portugal and other Allied countries, not represented on the London Executive, have equally to be effected through the same channels.

The articles at present scheduled by the Inter-Allied Meat and Fats Executive are as follows :—meat (including preserved meat), bacon, hams, lard, butter, poultry, canned fruit, canned beans, condensed milk and dried fruit.

The system may then be represented in the following chart :—



In order to deal with oils and fats, there is being set up an Inter-Allied Oil and Seed Executive, whose place in the system will be co-ordinate with the Inter-Allied Meat and Fats Executive, and which will purchase, in the same way, through the Allied Provisions Export Commission in New York. This new Executive is scheduling such articles as oleo oil and stock oil, margarine oleo, stearine, &c., &c.

In the case of the Wheat Executive, the purchasing body in the United States, corresponding to the Allied Provisions Export Commission, is the Wheat Export Company of New York, while a similar body has been established in Canada for the purchase and export of cereals in that Dominion.

The Sugar Commission is also dissimilar from the Meat and Fats Organisation. As the Royal Commission on the Sugar Supply, it was established, as has been stated, long before the Ministry came into being. In the early part of 1916 the Commission arranged to buy for France, and later for other Allies.

In September, 1917, at the suggestion of Mr. Hoover, an International Sugar Committee was established in New York to centralise the purchase and allocation of Cuban and American sugars. The Royal Commission sent two delegates to represent them on this Committee, and thus the co-ordination of Allied purchases was effectively completed. The expenditure of the Sugar Commission to October 1st, 1917, exceeded £120,000,000.

The British programme of requirements submitted to any of the inter-Allied Executives must also be passed by what is known as the American Board. The name is rather misleading, as this particular Board consists of Mr. Austen Chamberlain (Chairman), and representatives of the principal Departments of His Majesty's Government interested in securing supplies of all kinds from the United States, together with representatives of the Foreign Office, the Treasury and the Ministry of Shipping. This Board sits to determine the allocation and priority of finance and, to some extent, tonnage for the requirements put forward by the respective Departments. If it proves impossible to reconcile the conflicting claims of, say, the War Office or the Ministry of Food with those of the Ministry of Munitions, this Board seeks instruction from the War Cabinet. The point once settled, the British requirements, in their order of priority, are presented by the American Board, and by corresponding organisations in France and Italy, to the Inter-Ally Council, as a whole, the Chairman of which is Mr. Oscar T. Crosby, the representative of the United States Treasury. The decisions of the Council are communicated to the respective Food Executives, and the cabled orders for monthly purchases are based upon them.

To anyone not conversant with the difficulties of preventing competition as between three great nations in the purchase of supplies from the only available market or with the task of reducing apparently irreducible demands by departments of the same Government, the "overhead" machinery may appear cumbersome. In practice, it has so far worked simply and well, and it appears to have solved what threatened to be one of the principal stumbling blocks in procuring food supplies.

Antecedent to or coincident with the protracted international negotiations which led up to this "overhead" machinery for imports, strenuous measures were taken to build up a strong reserve of cereals in the country, with the result that at the beginning of October, 1917, there were 3,000,000 quarters more wheat in stock than at the corresponding period in 1916.

With a view to stimulating the home farmer to increase cereal production, the Ministry of Food, in conjunction with the Agricultural Boards, announced early in 1917 figures below which the producers' price would not be fixed: The maxima for the harvest of 1918 will be based as follows:—

- (1) Wheat and rye on an average price of 75s. per quarter of 504 lbs.

- (2) Barley on an average price of 65s. per quarter of 448 lbs.
- (3) Oats on an average price of 46s. 3d. per quarter of 336 lbs.,

and an addition to the price of oats shall be allowed for the better classes sold for milling purposes.

A minimum price of £6 per ton for potatoes was guaranteed to the home grower in the early days of the Ministry in order to encourage production. Steps were also taken to conserve seed potatoes. In 1917 the supply of potatoes exceeded that of 1916 by 3,000,000 tons, and was 2,000,000 tons above the average crop of the past ten years. A maximum price to the grower of £6 10s. has now been fixed. The Ministry have arranged to take over the whole of the potato crop as from November 1st, 1918.

To meet the butter shortage, the whole of the exportable surplus of Australia and New Zealand has been purchased. As in other commodities, expert butter buyers have been sent to the United States and Canada, where, through the Meat and Fats Executive, they are endeavouring to secure further supplies.

Far-reaching measures have been taken to meet the deficiency of margarine caused by the cessation of imports from Holland. Refineries and factories have been and are being equipped with additional plant, and, by the summer of 1918, provided that the raw material is available, the output should reach 7,000 tons per week as compared with 1,300 tons in 1912. In order to provide the raw material for this vital industry the whole of the exportable surplus of the West African ground nuts and palm kernels, the whole of the Egyptian cotton seed crop and a portion of the South American and Indian linseed crops have been purchased. All oilseeds, nuts and kernels in the United Kingdom are controlled so as to ensure the highest possible percentage for use as human food, and non-edible oils are being substituted in those industries where edible oils were formerly used.

In respect of the shortage of meat and bacon and other food-stuffs, the close co-operation maintained by the Ministry with Mr. Hoover and the Canadian Food Controller has been the means of enabling British and other Allied needs to be brought forcibly before the people of the United States and Canada, with the result that by voluntary meatless and wheatless days and redoubled efforts in production they have been able considerably to increase the exports. In addition to this propaganda the British Food Mission in New York and their expert British buyers are sparing no effort to obtain increased supplies.

In order to supplement the meat supplies every effort is being made, in conjunction with the Board of Agriculture and Fisheries, to increase the seasonal catch of fish and to ensure its proper curing. It has also been arranged to import frozen fish from Newfoundland and, possibly, other markets, if tonnage can be provided.

The shortage of tea, which attracted so much public attention, was due not to lack of supply, but to lack of tonnage, in the early summer of 1917. Lord Rhondda decided that, in view of our national habits, tea must be considered as an essential article of food. The Ministry of Food took over the purchase and shipping of all tea from India and Ceylon to the United Kingdom, with the result that there should soon be a supply sufficient to meet all reasonable demands at a moderate price.

In order to preserve the milk supply, concentrated feeding-stuffs are being distributed with priority to dairy cattle, and there is reason to hope that there will be enough milk in the country to maintain the health of the population.

These are in outline the principal measures taken, as apart from conservation, to meet the problems of supply.

(b) FOOD CONSERVATION.

What has been done under this heading may be described as the steps taken to conserve our supplies. Two methods have been adopted, first by appeal for voluntary effort; second by Orders under the Defence of the Realm regulations. Early in 1917 Mr. Kennedy Jones, M.P., was appointed Director-General of Food Economy, and, in conjunction with the Ministry of Food and the War Savings Committee, prosecuted a popular campaign. Voluntary rations were suggested, and the public were urged to limit their weekly consumption of the following essential foodstuffs to: Bread 4 lb., or flour 3 lb., meat 2 lb., sugar $\frac{1}{2}$ lb. These rations were intended to represent average consumption. Despite the serious shortage of potatoes and other bread substitutes the consumption of flour between March and July in 1917 was reduced, roughly speaking, by 20 per cent., a considerable part of which was undoubtedly due to voluntary effort on the part of the public. In September Sir Arthur Yapp, K.B.E., who succeeded as Director-General of Food Economy some time after the resignation of Mr. Kennedy Jones, undertook another voluntary campaign, but while this did not result in any great saving in national consumption, it had excellent effect in bringing home to the public the urgency of food economy, either by restrictive or voluntary measures.

Since early in the war the export of practically all foodstuffs has been prohibited except under licence. Licences are controlled by the War Trade Department who during the past year have acted in close consultation with the Ministry of Food. At the present time, export of food is only allowed in such small quantities as are necessary for British possessions dependent on this country.

By a series of Orders the following *restrictions*, with the object of economising our reduced supplies, are now in force:—

SUGAR.—The whole of the domestic consumption of sugar has now been brought under the most rigid control by the system of

the registration of all dealers, combined with the registration of each individual consumer by means of sugar cards, with one selected retailer—the first instance of universal rationing in England. The amount allowed to each individual is no more than $\frac{1}{2}$ -lb. per head per week. Its use in sweets and other manufactures has been limited to 25 per cent. of the normal quantity. Sugar may only be used for cooking in hotels, restaurants, clubs or boarding houses on an average of one-seventh of an ounce per lunch or dinner. Residents may in addition obtain a further 6 ounces of sugar per week for their individual use. The amount that may be used in cakes made for sale is limited to 15 per cent. of their total weight, in biscuits to 15 per cent., and in buns to 10 per cent.; while scones must be made entirely without sugar.

CEREALS.—The pure white wheaten flour almost universally in use before the war, has now, as the result of increased extraction on the one hand and the dilution with other cereals on the other, been replaced by a less attractive-looking substitute. The following paragraphs set out these and other restrictions in force :—

The percentage of flour to be extracted from wheat is now 90 per cent. (as against a prevailing 72 per cent. before the war); that is to say, parts of the wheat which formerly went into offals for cattle consumption are, to this extent, being forced into flour for human consumption. In addition to making the above from wheat, millers are compelled, before issuing the flour, to dilute it up to a certain minimum with maize, barley, or other cereals. The present minimum is 20 per cent., that is to say, every sack of flour must be so constituted as to have at least one-fifth of flour prepared from cereals other than wheat. The actual percentage of dilution may materially exceed this and does so in many cases. The maximum dilution permitted is 50 per cent. A further dilution of the quality of the "war bread" has been made by the permission and encouragement of the admixture of potatoes, which may now be used to an unlimited extent. Potatoes are being supplied at a specially low price to bakers in order to encourage this use. The use of bread at public meals is limited to a maximum of 3 ozs. at breakfast and dinner, 2 ozs. at luncheon and $1\frac{1}{2}$ ozs. at tea, with the addition at luncheon and dinner of a further 1 oz. of flour (in cooking).

The use of cereals in the manufacture of commodities other than articles of food has been prohibited except under special authority from the Ministry. This authority has been refused in practically every case except those of textile and laundry starch where a strictly limited use has been allowed to continue.

The use of wheat, rye, rice and barley in the feeding of live stock is entirely prohibited. The necessity for this saving in cereals has outweighed the resulting very serious risk of the quantity and quality of the meat supply. The use of oats, maize, beans and peas for feeding horses is subject to a strict scale of

rationing, the only exceptions allowed being horses used in the naval and military services, for agriculture, or for stud purposes, while the scale allowed for others is dependent on the nature of their work, and for some horses no oats at all are permitted.

No new bread may be sold and no sugar used in the baking of bread. Waste of bread or cereals is a penal offence. The sale of fancy cakes, crumpets and pastries has been prohibited, as have also tea cakes and all sandwiching and fillings. In addition to the limitation of sugar already mentioned the percentage of flour in cakes must not exceed 30 per cent. of their weight, in buns 50 per cent. and in scones 50 per cent. Distilling, except for yeast and spirit for munitions purposes, has been stopped, while brewing has been reduced from the 1914 total of 36,000,000 barrels to about 14,000,000 barrels. Brewers' surplus stocks of barley have been taken over by the Ministry of Food as a reserve of bread material, and malting and the use of malt is allowed only under Government licence.

MEAT.—The sale of butchers' meat has been restricted to 50 per cent. of the sales in October, 1917. Two meatless days in every week are compulsory in all public eating places. This prohibition includes poultry, rabbits, hares, and all kinds of game. In London these days are Tuesday and Friday, elsewhere in the United Kingdom, Wednesday and Friday. No meat, poultry or game may be served or consumed in any public eating-place between the hours of 5 a.m. and 10.30 a.m. on any day. The sale of homekilled veal is stringently restricted. Compulsory rationing of meat is being arranged under the schemes formulated by Food Control Committees.

FATS.—Butter and Margarine are already controlled under local rationing schemes in a large proportion of the country. In public eating houses, butter, margarine and other fats are rationed at the rate of $\frac{1}{3}$ oz. for breakfast, luncheon and dinner, and $\frac{1}{4}$ oz. for tea.

No edible oils are permitted to be used for non-edible purposes.

MILK, CREAM AND CHEESE.—In order that the hardship caused by the shortage of milk may be confined so far as possible to those best able to bear it, Food Control Committees have been given power to requisition and distribute supplies and to secure priority to children and invalids. The use of milk in chocolate has been prohibited, as well as the serving of milk as a beverage in public eating places, except with tea, coffee, cocoa or chocolate. The use of cream for any purpose other than the making of butter, except in the case of children and invalids, is also prohibited. The making of ice-cream is prohibited.

Practically all stocks of imported cheese have been requisitioned.

HOARDING.—To prevent the evasion of these food restrictions by those able to purchase and store large quantities of food, a stringent Order against Food Hoarding is in force. This pro-

hibits, under severe penalties, the holding of any quantity of any kind of food in excess of the quantity required for ordinary use and consumption in the household.

It is interesting to note that in spite of all these drastic restrictions the health of the nation has actually improved. The mortality figures for the third quarter in 1917 show that deaths in the United Kingdom were 10·9 per 1,000 as compared with 13·5 in the same period of 1914, and this with a large proportion of those most capable of resisting disease—the fighting men—absent at the front. The death rate among children for the same periods was 91 per 1,000 as compared with 126. These figures for adults and children constitute a health record for the nation.

(c) DISTRIBUTION.

It has already been explained, under the section dealing with Supply, that practically all imported foodstuffs have come under the control of the Ministry of Food, both as to purchase, shipping and, on arrival, distribution through the regular trade channels. These constituted the primary steps necessary to control distribution to the individual consumer. Additional measures, such as the control of the flour mills, which were taken over early in 1917 and the control or requisitioning of stocks of various commodities in the country paved the way for the establishment of a scheme of distribution to the individual.

For this purpose the machinery of local government has been utilised and thereby decentralisation has been attained. Great Britain has been apportioned into sixteen Food Divisions consisting of Counties or groups of Counties. Each Division is under the supervision of a Commissioner appointed by the Food Controller, with one or more Assistant Commissioners. In each of these Divisions the Borough, Urban or Rural District Councils appoint local Food Control Committees. In Scotland the Local Committees are appointed by the Councils of Burghs of 5,000 population and upwards, and elsewhere jointly by the Councils of the Counties and smaller Burghs. All local Committees must include representation of Labour, Women, and the Co-operative movement.

This new national machine is now composed of about 1,900 committees. The first task of the Committees was to carry through the registration under the Sugar Rationing scheme. They are generally responsible for the enforcement of all Orders, and they have recently acquired greatly extended responsibilities for rationing. On December 22nd, 1917, Lord Rhondda authorised them to commandeer and redistribute supplies, in order to prevent the assembling of food queues, and to institute local schemes of compulsory rationing as forerunners of the universal plan which it is proposed to introduce. The result so far has been that London and the Home Counties—viz., Essex, Hertfordshire, Middlesex, Kent, Surrey, and Sussex—comprising about one-fourth of the population of the country, combined to

ration compulsorily under one scheme, butter, margarine, and meat, including butchers' meat, pork, bones, offal, suet and sausages, bacon and ham, cooked, tinned and preserved meats, venison and horse meat, poultry, hares, rabbits and game.

Similar combinations for compulsory rationing are being or have been made by Scottish Committees to cover the entire industrial area of Scotland, with Edinburgh and Glasgow as centres; by the South Midlands, comprising Oxfordshire, Southampton, Wilts and Bucks, with Portsmouth, Southampton and Reading as main centres; by 75 Committees covering the whole North East Coast; by South Wales Committees, with Cardiff and Swansea as centres, and by the great industrial centres in Lancashire and Yorkshire. The underlying principle of most of these schemes is the registration of consumers with retailers and the limitation of amounts permitted to be sold by the retailer. These schemes will ultimately be absorbed in a national system of rationing for which they are providing invaluable experience.

The universal compulsory rationing of Sugar which came into force on January 1st, 1918, is broadly based on the principle that every consumer has to be registered with a selected retailer, who in turn has to be registered with the Local Committee. Individual Sugar Cards are issued by the local Food Control Committees to members of each household, while transients receive coupons. A central clearing house for detecting fraud and preventing duplication of issue of tickets throughout the country has been established by the Ministry and is working admirably at the Imperial Institute. So far as can be seen the machinery for the compulsory rationing of sugar is likely to prove the equal of any system yet devised in any country.

In order to procure from each area the weekly quantity of cattle which is its fair share of the numbers needed to meet the national needs and to provide against any producing district having its herds depleted to a degree which is uneconomical, the country has been divided into 19 livestock areas, each presided over by a livestock Commissioner. Each livestock area has been sub-divided into market districts, coinciding so far as possible with the areas of groups of Food Control Committees, and each of these districts is under the charge of a deputy chairman of the licensed auctioneers acting under the Commissioner. Into this organisation the whole of the 2,000 to 3,000 livestock auctioneers in the country have been worked as officials of the department acting under the livestock Commissioners. Each area must be supplied in the first instance from stock produced within it, and no cattle may be transferred from one area to another without the consent of the livestock Commissioner. If it is found necessary to supplement the supply of meat in any particular area, the Ministry of Food determines which area provides the additional quota, and gives the necessary instructions through the livestock Commissioner to the deputy chairman of auctioneers who, with their fellow auctioneers and committees of farmers are responsible for procuring the necessary supplies.

In this connection also reference may be made to the scheme for controlling the distribution of cattle feeding-stuffs. By an Order of 21st December, provision is made for the appointment of Feeding-Stuffs Committees in five ports and also of one or more Provincial Committees in each county in England and Wales to deal with the distribution of cattle foods. The Port Committees consist of importers and manufacturers, the Provincial Committees of distributors. Each of the Provincial Committees is attached to one or other of the Port Committees and gets its supplies from it. A scheme of rationing concentrated cattle food securing priority for dairy cattle has been put into operation through the Livestock Commissioners and their committees.

In the case of milk, during the winter months the usual shortage has been accentuated particularly in certain districts by the diminished supply of brewers' grain and concentrated winter feeding stuffs for dairy cattle. Accordingly, the Food Controller gave powers to local committees to commandeer milk supplies in their area, and many Food Committees have adopted schemes which secure priority of supply for children and invalids. The Food Controller has announced a scale of rationing of milk for children of different ages and other persons which came into operation on January 21st, 1918. Local committees are required to give priority of supply up to these quantities in their areas. By a recent order local authorities are empowered to supply milk and food to nursing and expectant mothers, and milk to children under 5 years of age. State grants are authorised for necessitous cases. Also it should be stated that the Ministry of Food, in anticipation of a shortage of fresh milk in winter, purchased large quantities of dried milk, which are being supplied at cost prices to Medical Officers of Health and Infant Welfare Centres for distribution to children. A notable step forward has been taken in dealing with improved distribution in milk and with the actual problem of priority of supply for young children.

An important step towards improved distribution has been the establishment of increased cold storage facilities and the part taken by the Ministry in improving road and rail transport facilities for food supplies. Arrangements have been made to increase the cold storage space in the United Kingdom by over 10,000,000 cubic feet, or by one-third of the total cold air space available when the Ministry was formed. A Road Transport Board to co-ordinate the work of existing Government Departments has been set up and should ensure accelerated delivery of foodstuffs. An experienced traffic manager has been appointed Director of Railway Transport for the Ministry of Food. Many other measures to provide economical and satisfactory delivery of food supplies to all parts of the country have been taken, including the prohibition of the transport of certain food supplies from one part of the country to the other except under authority of the Ministry. Officers have also been appointed to prevent waste or deterioration of food cargoes at the docks or in warehouses. A branch for ships' stores has also been set up with a view, amongst

other things, to controlling excessive purchases for outgoing ships.

Another step in the direction of solving the food problems that confront the Ministry of Food has been taken by the formation of a Consumers' Council under the Chairmanship of Mr. J. R. Clynes, M.P., Parliamentary Secretary to the Ministry of Food, composed of representative men and women whose work has been connected with the welfare of the masses, to act as an advisory body to the Ministry. Their experience applied to these complex problems should be of value, and in no direction more than that of food distribution, which, with the commencement of compulsory rationing, must play a great part in the life of the nation.

(d) PRICES.

When Lord Rhondda took office in June he laid particular stress in public speeches upon the urgency of reducing prices in the case of articles of prime necessity: of fixing profits at every stage from the producer to the consumer, and of abolishing profiteering. The difficulties which confronted him and had confronted his predecessor have been outlined in a previous section of this summary. Prior to June, 1917, emergency measures had been taken to fix maximum retail prices for the imported supplies of beans, peas and pulse—the first instance of a Food Controller's power to stop profiteering—and to provide for partial control of provision prices, such as bacon, butter and cheese, by arrangement with the trade. Imported cheese of good quality was controlled to be sold at 1s. 4d. per lb., and 90 per cent. of imports of Indian and Ceylon tea had been allocated to be sold to the public at three shillings or under per lb. The maximum wholesale price for milk, established by the Board of Trade prior to the formation of the Ministry, and the minimum price fixed for potatoes, have already been referred to.

Practically the first step taken by Lord Rhondda to fulfil his aims was the establishment of a Costings Department, through which, under the Defence of the Realm Act, the profits made by any manufacturer of, or any dealer in, food could and can be ascertained. In order to decentralise the work of this Department, the country was divided into separate areas, in each of which a leading firm of accountants has been appointed to do the necessary work. Reasonable profit, based on pre-war rates, is added to the present cost—through all stages, producer, importer, wholesaler and retailer—and price limits are fixed after consultation with the trades concerned.

Step by step, the control of supply and the preparations for control of distribution enabled Lord Rhondda, with the information placed at his disposal by the Costings Department, to determine what was fair and what was undue profit. One by one the various industries concerned in the food supply of the country came under control. There was no attempt to oust the wholesaler or other legitimate middleman. They were regarded as

necessary links in the chain of normal distribution for which the Ministry of Food could not, if it wished, set up a substitute machinery. But their profits were restricted to a fixed commission and, in effect, they became Government Agents, who were paid according to the amount of work done. And as all wholesalers or middlemen connected with controlled food industries were compelled to do business under licence or registration, it followed that the predatory speculator, without any legitimate trade interest, was definitely eliminated.

Speculation or profiteering in the food of the people has therefore become practically impossible in any article under Government control. The extent to which profiteering has been eliminated will be apparent when it is mentioned that almost every essential foodstuff—except poultry, game, fruit other than for jam, and fresh vegetables—is now controlled in price. The controlled list includes all imported and home-grown cereals, all sugar, potatoes, milk, butter, cheese, lard, margarine, meat, fish (partially), pork, bacon, hams, rabbits, tea, coffee, jams, jellies, dried fruits, cattle feeding-stuffs and oils. The Local Food Authorities have power to lower prices, but may not increase them without the consent of the Food Controller.

The net result to the country of this control may be judged from the figures of the Department of Labour Statistics. These show that on January 1st, 1918, 13 out of the 21 principal food items quoted had decreased in retail price as compared with the price on July 1st, 1917. The whole tendency of prices since the beginning of the war had been continuously and rapidly upward. The checking of such tendency was rendered all the more difficult during the latter part of 1917 by the large increase in wages granted to miners and munition workers, railwaymen and others, amounting to over £100,000,000. It was scarcely anticipated that the Ministry of Food would be able to do more than to prevent prices from soaring higher, yet on January 1st, 1918, as compared with July, 1917, there was a reduction in the expenditure on food of an average working class family amounting to from 8 to 10 per cent.

In the cases of bread and potatoes, the reduction in price was obtained by means of a State subsidy. Despite the fact that the Wheat Commission were buying imported cereals for Government account and that home-grown cereals were price-controlled, the price of bread remained at 11*d.* to 1*s.* 1*d.* for the 4-lb. loaf. It was, therefore, decided in September, 1917, to reduce the 4-lb. loaf to 9*d.* for cash over the counter and the 2-lb. loaf to 4½*d.*, or a saving to the consumer of, roughly speaking, 25 per cent. Maximum wholesale and retail prices of flour were fixed by means of State subvention to allow bread to be sold at this reduced price. The measure was considered necessary to place within reach of the poorest classes the basic food of life and thereby maintain national efficiency at a critical period of the war. The introduction of the cheaper loaf undoubtedly did much to allay the then widespread discontent and unrest due to the excessive cost of food.

In respect to potatoes and the minimum guarantee of £6 per ton given in January, 1917, to stimulate production, Lord Rhondda was able by arranging that all dealers should register and by not allowing potatoes to pass through the hands of more wholesalers than two, whose profits are limited to 7s. 6d. per ton, to fix a maximum price to the growers of £6 10s. and to fix a scale of retail prices. The high minimum price of £6, under which growers were forbidden to sell, threatened to waste the huge surplus crop of 1917. It was therefore decided to allow growers to sell at certain fixed prices below the guaranteed minimum, the difference being recoverable from the Government.

Meat was brought under control and the speculative middleman eliminated by fixing the maximum wholesale prices of dead meat based on a scale for live meat. The live weight scale was fixed for Army purchases, and referred to cattle of a quality that did not provide more than an average of 52 per cent. of meat; it was to descend from 74 shillings per live hundredweight in September, 1917, to 60 shillings in January, 1918. By fixing the price at 60 shillings for January it had been hoped to bring down the excessively high prices to which store cattle had risen. Butchers' gross profits are limited to 2½d. per pound, or 20 per cent. on their fortnightly turnover, whichever is less. It is open to the Local Food Committees to fix a lower limit for the gross profits. To meet the dissatisfaction expressed by farmers and others, Lord Rhondda modified the original order by extending the 67 shillings price per live hundredweight from December, 1917, to December, 1918.

In the case of Sugar, prices are controlled throughout. The Sugar Commission imports sugar on Government account and regulates prices to wholesalers and retailers on the basis of costs of production and handling. No Statutory Order has been issued fixing prices, but the Commission, holding a monopoly in this article, is enabled by the threat of withholding supplies to compel dealers to conform to its regulations. The prices to the consumer on January 1st, 1918, and for some time previous, were: loaf sugar, 6½d. per lb.; white granulated, 5¼d. per lb.; ordinary brown, 5½d. per lb. Lists of prices which the public ought to pay for sugar are officially issued, and charges in excess of these can be reported for investigation.

In the case of bacon and hams, maximum prices have been fixed for importers and curers, with additional charges for transport, the retail price not to exceed an average of 3d. per pound over the actual cost to the retailer.

Further, the prices of concentrated feeding-stuffs purchased by the farmer have been reduced and controlled by a series of Orders operating at each stage of production and limiting profits. The imported seeds and palm kernels are purchased direct by the Ministry of Food in the country of origin or requisitioned on arrival, sold to the crusher at controlled prices, and turned by him into oil and cake at prices based on his actual costs. The oil passes to the refiner and to the margarine manufacturer at

controlled prices throughout each stage, and the cake is distributed through licensed dealers at fixed commission rates to farmers.

These details have been given as typical instances of the way in which prices have been fixed for almost all food commodities in the endeavour to eliminate profiteering, to place essential foodstuffs within the reach of the poorest, and at the same time to provide such profit as will be fair incentive to increased production. It will be observed that one of the principal purposes for which the Ministry was created, namely, to encourage the production of food, has been fulfilled by fixing in advance, with the concurrence of the Board of Agriculture, suitable prices for the chief articles of food produced in this country, namely, cereals, meat, potatoes, milk and cheese.

CHAPTER XV.

PENSIONS, HEALTH, WELFARE, AND LIQUOR CONTROL.**War Pensions, &c.**

The Ministry of Pensions came into existence on December 22nd, 1916, simultaneously with the present Government. It took over duties previously discharged by the Admiralty, the Chelsea Commissioners and the Army Council, and has since added to them the responsibilities of the Statutory War Pensions Committee, which was set up after the commencement of the war.

The introduction of a new regime presented opportunity for a revision of policy in two main directions.

Firstly, the monetary scale of pensions has been increased and the conditions attached to them have been widened, so as to effect a more liberal recognition of the country's debt to its defenders. The result is that the average rate of pensions is larger, and the number of beneficiaries has been greatly increased. There are now over 1,000,000 cases on the books, including children, on behalf of whom allowances are drawn and new awards are being made at the rate of nearly 18,000 a week. The monthly average of 2,084 rejections under the Old Warrant has fallen to 99 under the New, and out of 15,729 previously rejected claims which had been reconsidered till the end of December, 1,618 were met by the award of a pension and 14,111 by gratuities.

Secondly, the principle of compensation has been reinforced by that of restoration of social and industrial efficiency. The Ministry does not regard its functions as limited to a judicial valuation of the loss and injury sustained by the disabled man or by the dependants of those who have sacrificed life or earning power in the country's service; it has laid down a broad constructive policy which looks to the recovery in every way of a firm hold upon life, through the highest attainable standard of physical, moral and industrial efficiency. The Ministry has taken within its purview the continuing medical treatment of the discharged man, his education and equipment as a producer, and the avoidance of any feature in its code that would set a premium upon resigned helplessness or diminish the incentives to profitable exertion.

The improvements in the financial scale of pensions may be briefly exemplified. The rate for total disablement in the case of a private has been raised to 27s. 6d., an increase of 10 per cent., with a corresponding rise for all degrees of partial disablement. Widows' pensions and children's allowances have been similarly raised, the minimum rate for widows being now 13s. 9d., which is 37½ per cent. greater than before. The allowances for children have also been substantially increased. The system of allowing a man's earnings on his discharge from the Army to affect the size of his pension has been wholly abolished

as being a vicious discouragement to the exercise of the pensioner's full productive capacity. Men discharged with a disability neither caused nor aggravated by military service (who previously got nothing) now receive a gratuity which may amount to as much as £150, provided that the disability is not the result of their own serious negligence or misconduct.

These flat rates are, however, coupled with a system of alternative pensions, designed to meet more equitably the cases of men who were earning high wages or salaries in civil life before they joined the Army or Navy. These are graded upon pre-war earnings, so that a totally disabled man, for instance, whose skill and industry before the war secured him an income of £5 a week, receives as much as 75s. a week, and the widow of such a man receives 37s. 6d.

In the case of officers also the scale and conditions of retired pay have been improved. The rates for the highest degree of disablement in the case of temporary regimental officers have been increased; they vary according to rank, *e.g.*, £175 for subalterns, £250 for lieutenant-colonels. Regular officers receive special advantages. Seven grades of partial disablement are recognised instead of only three. An alternative pension based on pre-war earnings and present earning capacity may be granted up to a maximum of £450 for a disabled officer, £225 for a widow. The maximum education allowance for the children of a disabled officer has been raised to £50, and the age for such allowances reduced from 13 to 9. Officers' widows now receive the highest rate of pension, not only if the officer was killed in action, but also if he died of injuries received in the performance of duty or of disease directly traceable to active operations in the field; the scope of the intermediate rate has also been extended. The conditions on which pensions may be granted to officers' parents and sisters has been considerably extended. The principle of restoration is being applied to officers as well as men, and expenses of suitable treatment and training are being defrayed by the Ministry in addition to the retired pay. The pensions, &c., of naval warrant officers and their families have been improved on similar lines.

The pensions for nurses have been greatly augmented, and for total disablement the scale (formerly £40 to £60) is now £100 to £175, the gratuities for lesser disablement being raised proportionately. This is a tardy recognition of the magnificent services of nurses. Nurses are also eligible for assistance in respect of treatment and training.

Both for officers and men, disabilities that have only been aggravated by war service have been raised to the same level of recognition as those entirely caused by it.

Much anxiety was felt by Approved Societies under the National Insurance Acts as to the effect on their funds of claims made by discharged soldiers and sailors in respect of incapacity attributable to War Service. No provision was included in the actuarial estimates on which the Acts were based for claims of this nature, and the fact that the bulk of the male insured

population of military age was serving in the Navy or Army afforded considerable justification for the apprehension felt by Societies. Accordingly, after careful consideration, the Government decided to relieve Societies of the burden imposed on their funds by the payment of sickness and disablement benefits to sailors and soldiers discharged during the war on account of wounds and illness so far as it is estimated to be attributable to war service.

The circle of those recognized as dependants has been considerably enlarged to conform with the facts of life. A more generous treatment has been instituted for unmarried wives and illegitimate children, the parents of students and apprentices whose death has destroyed prospects of future subsistence are given up to 15s. per week, and any parent of a dead soldier son may be helped to the same extent if incapacitated and in pecuniary need.

To ensure against inadvertent injustice, a system of appeals has been instituted by which every man can obtain the fullest investigation, both of his medical condition and of the relevant facts of his career, and the rule has been laid down that where insoluble uncertainties present themselves, the benefit of the doubt shall be given to the man and not to the State, as has been the past tendency.

What the Government's commitments on pensions mean can be appreciated by comparing the expenditure before the war with its growth during the past three years and the estimates for 1918 and 1919. The figures for awards of retired pay or pension in respect of disablement or disease of officers, warrant officers, non-commissioned officers and men of the Navy and Army and to the widows, children and dependants of officers and men deceased are approximately as follows:—

For Year ending March 31st, 1914	...	£700,000
" " " " " 1915	...	£900,000
" " " " " 1916	...	£3,000,000
" " " " " 1917	...	£8,750,000
" " " " " 1918	...	£23,000,000
" " " " " 1919	...	£41,500,000*

In the matter of after-care, the Ministry has established, and is still developing, extensive safeguards both for health and efficiency. The arrangements made by the National Health Insurance Commission for dealing with discharged sailors and soldiers suffering from tuberculosis, and for medical treatment of the insured men, were, in August, 1917, extended so as to provide medical and sanatorium benefits for all invalided sailors and soldiers (whether insured or not†). In cases where special treatment beyond the competence of an ordinary practitioner is necessary, an organization has been set up whereby the services of the nearest suitable hospital are utilised, the Ministry of Pensions defraying the cost.

* On present rates, apart from certain increases under consideration.

† Subject, in the case of the uninsured, to an income limit of £160 a year.

It has been arranged that, with a view to enhancing the willingness of tuberculous soldiers and sailors to accept the treatment offered, and their prospect of deriving the fullest benefit therefrom, a short period of furlough should ordinarily be allowed between the date of discharge from the naval or military hospital and the patient's entry to the sanatorium, and arrangements are also made for the payment of pensions, &c., where due, during the period they remain as inmates of the institution.

In the case of certain afflictions such as paraplegia, neurasthenia (including shell-shock), epilepsy and advanced tuberculosis, the Ministry has co-operated with other authorities and with the Red Cross Society in enlarging the number of institutions available for treatment. The need in this direction is very great, and the measures for keeping pace with it are still in progress. A steady watch is kept upon the provision for the blind and for the insane (who have been carefully separated from pauper lunatics), and, in order that the best possible designs may be arrived at in the matter of artificial limbs, the Ministry is establishing a Central Experimental Laboratory.

The care of limbless men offers the best illustration of the efforts which are being made to combine medical treatment with industrial re-education—a process which is most desirable, so as to prevent those who can no longer follow their old trades from sinking into unskilled and blind-alley occupations. Present openings in these are less likely to dissuade men from the acceptance of training if the work can be commenced prior to their discharge, and, by way of increasing the inducements, the training bonus of 5s. a week is paid from the time that re-education begins (where it does so) in hospital, although the men are then still technically in the Army. A large number of amputation cases spend several months at the Pavilion Hospital, Brighton, waiting till they are sufficiently healed to have the artificial limbs fitted. Excellent workshops have been installed here, where their training is begun. They then pass to the limb-fitting hospital at Roehampton, and their training is continued in the workshops there. On discharge, they can complete their training in one of the London Polytechnics or other Technical Institutions, being housed meanwhile in hostels which have been provided with the sanction of the Ministry through private effort. The training arrangements are in operation at 203 Technical Institutions, 320 workshops and private institutions and 20 Agricultural Colleges, while in some cases special establishments have been brought into existence through the generosity of public-spirited individuals. Training is being given in 48 industries, including engineering (mechanical, electrical and marine), commercial work, boot and shoe making, cinematograph operating, agriculture, tailoring, fancy leather trade, diamond cutting and polishing. The two last-named occupations are examples of the Ministry's policy in encouraging the teaching of any trade which, in the past, has been monopolised, or chiefly controlled, by foreign countries. The Ministry has co-operated with the Red Cross Society in providing industrial training for prisoners of war interned in Switzerland and Holland.

To meet the apprehensions of trade unions as to too many men being trained for particular trades, a number of Trade Advisory Committees, consisting of employers and workmen in individual trades, have been appointed, and these bodies have formulated schemes under which men can be trained and employed.

Before the Government's accession to office, additions not exceeding 2s. 6d. a week were made to Old Age Pensions in cases of special hardship. The test of special hardship has now been abolished, and all Old Age Pensioners are allowed an additional 2s. 6d. a week if their yearly means, calculated under the Acts, do not exceed £31 10s.

Beginning from 1st September, and during the continuance of the war and for six months thereafter, every workman who is entitled to weekly payments for total incapacity under the Workmen's Compensation Act of 1906, or whose right to such weekly payments has been redeemed by payment of a lump sum since the commencement of the Workmen's Compensation (War Addition) Act, 1917 (1st September), will be entitled to receive an additional allowance equal to a quarter of the weekly payment.

Health and Welfare.

As regards Public Health and the treatment of individuals, the embodiment of over 5,000,000 men in the Naval and Military Forces of the country has inevitably diverted towards the armed services a very large proportion both of the medical profession and of other agencies, which would ordinarily have been devoted to the promotion of public health in the usual sense of the term.

The mobilisation of doctors and the adjustment of the needs of the Army Authorities and the civil population was entrusted to the medical profession itself, the Central Medical War Committee in England and Wales and the Scottish Medical Services War Emergency Committee being constituted under War Office recognition to deal with this matter. Arrangements were arrived at under which the National Health Insurance Commission, the Local Government Board, the Board of Education, and any other Government Department concerned were to be consulted before any doctor was granted a commission in the R.A.M.C. Every application has thus been referred to the appropriate Government Departments, who before consenting to the applicant's release for military duties have satisfied themselves that having regard to the special circumstances, adequate arrangements could be made for the continuance of the civil medical work for which that Department was responsible.

The Local Government Board have continued to render assistance to the Military Authorities in the accommodation for cases of infectious disease, and supervision of sanitary arrangements in camps. They have also supervised arrangements for the use as military hospitals, or for other military purposes, of a number of institutions belonging to local authorities, upwards of 57,000 beds having thus been made available.

The medical treatment of large bodies of men employed at Gretna and other new munition factories throughout the Kingdom, of men engaged on hut building for the new armies, and of Belgians engaged in munition areas, has been met by the establishment of special machinery by the National Health Insurance Commission.

There have also been developments within the range of ordinary health administration. The growing attention paid to maternity and infant welfare is reflected in the rise of expenditure by the Local Government Board and the Board of Education, the amount voted for the present year being double that of last year.

The year has seen great progress in the establishment of schemes for the gratuitous treatment of venereal disease. These schemes are undertaken by County and County Borough Councils, in association, as a rule, with the general hospitals of the country. By the 31st December, 134 schemes had been submitted to the Local Government Board, of which 109, serving a population of over 31,000,000, had been approved, and work had already started at 107 hospitals, serving a population of over 26,000,000.

The War Cabinet have recently authorized the setting up of a special department under the Local Government Board to deal with the treatment of the blind, with an Advisory Committee for England and Wales, and one for Scotland.

The special character of current shipping traffic has imposed a special degree of vigilance against the introduction of disease from abroad. Every case of imported disease (including a few examples of plague) has been speedily dealt with, and in no instance has it been allowed to spread.

The work of the Medical Research Committee, established under the National Health Insurance Act, has been handicapped in some directions by the military claims upon investigators working under its auspices. On the other hand, the collection of large numbers of men under military rule has allowed observations to be made and recorded as to certain aspects of general health, which have yielded information otherwise almost unobtainable. It has given opportunity for a wide study of disease in its early stages which hospitals, receiving patients usually in an advanced stage, do not afford. This has strengthened the body of knowledge which is relevant to prevention as distinguished from cure. Since the commencement of the war, the Committee have brought almost the whole of their available funds and scientific resources to the assistance of the Admiralty, the War Office and the Ministry of Munitions, and several of the schemes with which the work of the Committee is directly concerned have already, in their achieved results, saved the country from an expenditure of many times their cost. An account of this work is published in the Third Annual Report of the Committee (Cd. 8825).

In addition to researches begun or maintained at various centres upon tuberculosis, rickets and other diseases, infections of milk and its purification, and other subjects of importance in civilian life, the Committee have contributed greatly to the advances made in medical and surgical knowledge needed for the proper care and treatment of sailors and soldiers in war. They have arranged and supported investigations into new antiseptics and methods of wound treatment, into infections like those of dysentery, typhoid, spotted fever, spirochaetal jaundice, which are specially dangerous under war conditions, and many results of great value have been gained. Organised studies of military disorders of the heart have already changed for the better the methods both of hospital treatment and of recruiting. New methods of oxygen supply have been worked out for the treatment of gassed patients and for flying men at high altitudes, and, apart from the direct military value of this work it has useful applications to ordinary hospital practice and to rescue work in mines. The Committee have also aided the Ministry of Munitions by studies of industrial fatigue, of the food of workers and their protection against poisonous explosives, and they have supplied investigators for special food problems important to the Ministry of Food. The Committee have undertaken for the Army Council the collection and analysis of the Army Medical and Surgical Records, and one outcome of this will be an index of all sickness and casualties in the army which, besides its military and scientific utility, will have essential value in the future to the Ministry of Pensions.

The National Health Insurance Commission has been charged with certain duties in connection with the conservation of medical supplies. Particular attention has been directed towards the encouragement of the manufacture in the United Kingdom of drugs previously obtained wholly or mainly from enemy sources, and the results that have already been achieved, as well as being of immediate value, are such as to justify confident hopes of the permanent establishment in this country of important and valuable expansions of the British fine chemical industry. The problem of developing adequate resources within the Empire for raw materials required in the production of essential drugs has also been examined, and recommendations have been made to the competent authorities. In the case of some important drugs, the failure of supplies, more especially for the needs of the Army Medical Department, has been prevented by the manufacture of adequate quantities through the agency of the Royal Society.

In connection with questions of the health of the people, mention must be made of the passing into law (on February 6th, 1918) of a very important Bill to improve the working of National Health Insurance in various matters tending to the simplification of the work of the Approved Societies and to rectifying certain financial difficulties that experience of the work has brought to light, particularly as regards the sickness of women, especially married women; for these purposes a grant of £400,000 a year

is to be provided by Parliament under the provisions of the new Act.

Steady progress has been made with the vitally important work of promoting good welfare conditions in factories and workshops, both in munition and non-munition industries. Previously to the war, welfare arrangements were enforced by the Home Office by means of Orders and Regulations under the Factory and Workshop Act, 1901, particularly in the case of certain unhealthy industries as the pottery trade, and were also adopted voluntarily by a certain number of enlightened employers in other trades; but no extensive development took place until the emergency conditions arising out of the war, notably the employment at night of large numbers of women, brought about a widespread recognition of the need of additional arrangements for the comfort and well-being of the workers. As a result of the combined efforts of the Factory Department of the Home Office, which has during the war devoted a large part of its energies to this work, and of the Health and Welfare Department of the Ministry of Munitions, which was specially established for the purpose, and with the ready co-operation of the general body of employers, a great change has been effected and a new standard of surroundings has been created both in national and controlled establishments where over 2,000,000 workers are employed, and in large numbers of other works belonging to non-munition industries. In this work invaluable assistance has been rendered by the Health of Munition Workers Committee which, by the issue of a series of memoranda tracing the effect upon output of such conditions as length of hours, dietary, systems of payment, amenities of factory accommodation, and intelligent and sympathetic personal supervision of the workers has given a great stimulus to the welfare movement and has helped to guide it on satisfactory and progressive lines.

The permanence of this reformation which must eventually spread throughout the whole sphere of collective employment, will be secured by the exercise of the compulsory powers obtained by the Home Office in Section 7 of the Police, Factories, &c. (Miscellaneous Provisions) Act, 1916, which enables the Home Secretary to make Orders requiring special welfare provision to be made wherever necessary either for individual works or for works of any particular class, group or description. The enforcement of welfare arrangements has thus become part and parcel of the regular work of factory administration. Under these powers Orders have already been made requiring (1) ambulance and first aid arrangements at blast furnaces, copper mills, iron mills, foundries and metal works in which 25 or more persons are employed, and (2) the provision of drinking water and facilities for drinking it at all works in which 25 or more persons are employed. An Order has also been made requiring messing, washing and cloakroom facilities, and protective clothing in tin and terne plate factories; similar Orders have been proposed for sections of the glass, dyeing and tanning industries, and Orders for various other trades are also under consideration. The

question of protective clothing for women workers has been specially dealt with by the issue of a memorandum entitled "Protective Clothing for Women and Girl Workers employed in Factories and Workshops," which gives a list of the processes in which such clothing is specially required and specifies in each case the type of clothing considered to be most suitable.

The Committee (Health of Munition Workers) has continued to pursue its investigations into the effects of different working systems, such as the comparative results of day and night work, the expediency of work before breakfast, the influence of wage scales upon the worker's effort, and the bearing of various details of factory life upon his personal health and consequent productive capacity. It has gathered substantial proofs of the benefit derived from the appointment of Welfare Supervisors in large establishments, whose function is in the nature of a trusteeship for the physical and moral health of the employees and for the quality of their life from a general human point of view. The further that they proceed, the more strongly have the Committee become impressed with the need for some permanent organisation for the collection of scientific data bearing upon the solution of industrial problems. But, at the same time, they have exerted themselves to bring the positive conclusions of their research and experience clearly and widely before the employer and work-people of the country at large. An exhaustive handbook upon the Health of the Munition Worker has been prepared, setting forth in every detail the desirable standard of conditions in such matters as "Hours of Labour," "Fatigue and Causes of Lost Time," "A Healthy Factory Environment," "The Industrial Canteen," "Industrial Diseases," "Protection of the Eyesight," "Sickness and Accidents," "Outside Factory Conditions," and "Welfare Supervision."

A booklet, entitled "The Boy in Industry," has been sent to all controlled establishments employing boys. The care of boys has received particular attention, and special supervisors have been appointed to prevent the exploitation of boy labour.

It is a significant fact that, except where hours have been very long relatively to the class of work, sickness does not appear to have increased in munition factories generally since the war, despite the withdrawal of many of the most robust men. While the absence of such increase is to be ascribed largely to the general effects of good employment and high wages, it may also be reasonably ascribed in part to the introduction of Welfare Supervision and the establishment of Industrial Canteens. The Ministry of Munitions have also constituted an extra mural sub-section to deal with the welfare and health of workers outside the factory. Schemes for healthy recreation are being actively promoted and organised in industrial areas. Creches and Play Centres are being set up where children of munition workers can be cared for while their mothers are at work. A maternity branch is in course of formation, while special branches of the Department supervise lodgings, hostels, and

other accommodation for men, women and boys. There is a special sub-section devoted to purely medical matters, such as T.N.T. poisoning, with medical advisors at headquarters and medical officers stationed in many factories.

Housing.

An Advisory Conference was appointed by the President of the Local Government Board, to consider the "Housing" question, which is already acute in some areas, and will become increasingly urgent on the arrival of peace. It was recognised by this Conference that during the difficult period immediately following the war, when materials might be expected to be exceptionally scarce and dear, and money obtainable only at heavy rates of interest, private enterprise would be unable to cope with the problem. Hence it was necessary to move the local authorities to prepare for immediate action. The War Cabinet decided that substantial financial assistance should be given to local authorities through the Local Government Board and a circular announcing this, accompanied by a form of return intended to obtain information as to the needs of each district and the willingness of the local authorities to supply them, had resulted, by the 31st December, in the receipt of replies from 1,405 local authorities out of 1,806. An analysis made of these replies indicates a need of some 300,000 houses.

The President of the Local Government Board has appointed an expert Committee to consider questions of building construction, and report upon methods of economy and dispatch in the provision of working class dwellings. He has concurred with the Minister of Reconstruction in the appointment of a Committee to consider the important questions of materials and their availability. He has also obtained from the Treasury a grant in respect of the expenses of the Royal Institute of British Architects in organising competitions for securing the best possible designs for building.

The President has also reconstituted the Committee on Bye-laws which deals with matters having an important bearing on housing. A Bill is in draft which is intended to give facilities to County Councils to provide houses for their employees and to take the place of unwilling authorities under the Housing Acts, if any there be.

Industrial Canteens.

The general responsibility for the organisation of canteens and dining rooms at national and controlled munition works throughout the country was placed upon the Central Control Board (Liquor Traffic), which maintains an expert staff for the advice and assistance of employers, and has during the past year issued a handbook to serve as a comprehensive and practical guide to canteen construction and management. The number of canteens in operation or approaching completion in the month of December last was 720, the number of employees in the establishments thus actually or prospectively equipped being 920,000. (These figures do not include the 60 canteens for transport workers at

the principal docks in Great Britain). The number of schemes of canteen provision approved during the past year was 380, the sanctioned expenditure from excess profits £811,000, the workers affected close on 350,000. It may be taken that within the next twelve months the total number of canteens available will have risen to 900. The total amount of the allowances from the current profits of controlled establishments which the Board have recommended is £1,374,811, and the payments to voluntary societies by way of grant in aid come to £15,238 apart from the payments made direct from Government funds for the provision of canteens at national factories. Geographically, the canteens are distributed throughout the length and breadth of Great Britain. They have been established in works carrying on every kind of manufacture included in the extended description of munitions work from cardboard boxes, paper and soap, to high explosives, guns and battleships. The good offices of the Canteen Committee of the Central Control Board (Liquor Traffic) are placed freely at the disposal of any factory authorities or proprietors unconnected with munitions desiring to make canteen provision for their employees.

The Munitions (Food) Committee, appointed this year by the Minister of Munitions, has recorded its judgment that the canteen's "high value as an agency of improved nutrition, and therefore increased energy and output is beyond doubt. Not only must this value be retained and enhanced, but steps should be taken to encourage an extension of the movement in all practical ways."

In the extension of the canteen system among the 4,500,000 of factory and workshop employees unconnected with munitions (whose needs in this respect have frequently been dwelt upon by Home Office Inspectors) a beginning has been made under the jurisdiction of the Police, Factories, &c. (Miscellaneous Provisions) Act, 1916. Under Clause 7 of that Statute, the Home Secretary is empowered to require from occupiers reasonable provision of "arrangements for preparing or heating and taking meals." An Order has been made for the tin and terne plate trade requiring the maintenance of suitable messrooms, furnished with adequate sitting and washing accommodation, and means of warming food and boiling water, and Orders on similar lines have been issued in draft for sections of the glass, dyeing and tanning industries.

Liquor Control.

The principal step of a restrictive character affecting intoxicating liquors during 1917 was taken by the Food Controller who, in order to economise foodstuffs, advised, in January, 1917, that the output of beer be reduced from 26,000,000 to 18,000,000 standard barrels as from April 1st, 1917. Owing to the continued submarine menace, and the actual and prospective loss of shipping, the Prime Minister subsequently announced in the House of Commons that a greater reduction was necessary, and that the figure of 10,000,000 barrels must be aimed at. This was carried

out by an Order of the Food Controller. After allowing for certain increases, authorised in order to meet the needs of the Army and of munition and other workers, it is estimated that, for the nine months from April 1st to December 31st, 1917, the output of beer for the whole population, including the Army, amounted to 10,500,000 standard barrels, *i.e.*, at a rate of about 14,000,000 barrels a year. This reduction made during the past year was equivalent to one of about 46 per cent. In October, in order to prevent the light qualities of beer from being sold at unduly high and widely varying prices, the Food Controller fixed 4*d.* and 5*d.* per pint as maximum prices in public bars for beers of certain specified gravities.

Simultaneously with the restriction on beer, and to prevent beer drinkers turning to liquors of greater alcoholic strength in the shape of spirits, the withdrawals of spirits from bond were, as from April 1st, cut down to half the quantities withdrawn during the year 1916.

The manufacture of all spirit for human consumption was entirely stopped in 1917, and no whisky or other potable spirits are now being made.

Before the decision of the Government to make this great reduction in the amount of intoxicating liquor available, which could not fail to diminish the prejudicial effect of drink on national efficiency, the Central Control Board (Liquor Traffic) had, in December, 1916, reported to the Government that, in spite of a great improvement, due to their restrictions on hours, to the prohibition of treating, to the abolition of credit sales, to the dilution of spirit, &c., the successful prosecution of the war was then still being hampered both by an excessive consumption of intoxicating liquor and by the inadequate control of its sale.

They had stated that, in their opinion, prohibition was not essential, provided sufficiently stringent measures of control were applied, but that, as regards mere administrative restrictions, the limits of effective action had been well nigh reached. The pressure of competition in the Trade and the redundancy of public houses made it impossible for the full effect and advantage of their orders and restrictions to be gained. In their view the most rapidly effective and most permanent solution would be met by direct State Control through purchase. The anticipated advantages included the elimination of all private profit in the liquor trade; the substitution of salaried managers, with no financial interest in the sale of alcohol, for tenants dependent for their livelihood on the amount of their sales; a stricter observance of the law; the immediate suppression of many thousand redundant licences; the concentration of businesses which would be accompanied by the closing of superfluous breweries and more economical use of land transport; greater facilities for the supply of food and non-alcoholic refreshment; and the release of a large number of men and women for other work.

The Government subsequently appointed Committees for England and Wales, for Scotland and for Ireland respectively

to report upon the financial arrangements involved in a policy of Direct Control and Purchase.

As regards the broad effects of the restrictive work of the Central Control Board (Liquor Traffic) over Great Britain (nearly nineteen-twentieths of the population are in scheduled areas), it is noteworthy that the enormous fall in the convictions for drunkenness recorded since the establishment of the Board has progressed further during 1917. The weekly average of convictions for scheduled areas in England and Wales was 3,388 in 1914, 2,517 in 1915,* and 1,544 in 1916. In 1917, up to the week ending on 2nd December, the weekly average had fallen to 855. In Scotland, the weekly average immediately before the issue of the Board's main Order in 1915 was 1,485 and for the four weeks ending on 2nd December, 1917, it was 507. The evidence of increased sobriety and efficiency which is afforded by these figures is borne out by much medical and statistical evidence to a like effect.

In two districts, the Glasgow Dock area and the shores of the Firth of Forth, special problems appeared to call for exceptional treatment, and an experimental scheme of supervision was devised and applied in 1917. In each district an officer of the Board, armed with special powers, was appointed to supervise the business carried on in all the licensed premises to which the scheme extends. The main object of this officer is to encourage and help licensees towards keeping the conduct of their businesses up to a high standard in the best interests of their customers and of the nation in these times. The work is chiefly done by personal visits and advice, but the Supervisor has power to issue orders which have the force of law; and in Glasgow he has so ordered the licensees not to include in the payment of their assistants any commission on the sale of liquor.

In Carlisle, Gretna and Annan where the drink trade has been nationalised, the Liquor Control Board having purchased the five local breweries and acquired upwards of 300 licences, many changes which would have been impossible without purchase have been made and completed during 1917, *e.g.*, 35 per cent. of the public houses have been closed for the sale of drink; all the grocers' licences have been abolished; external advertisements of intoxicating liquors have been removed from licensed premises; large popular restaurants have been established, not only at Carlisle, but also in the adjoining districts of Gretna and Longtown, where cheap, well-served meals and refreshments, as well as beer, &c., are provided, while several public houses have been converted into tea shops. The sale of spirits to young persons under 18 has been stopped and the sale of intoxicants on Sunday has been prohibited throughout the Carlisle area, public houses being kept open, however, at certain times for purposes of recreation. The measures taken have been amply justified by the improved efficiency and sobriety of this important munition area.

* The Central Control Board (Liquor Traffic) began its operations in 1915.

A satisfactory testimony to the success of the work in this area where the drink trade has been nationalised, is that Local Authorities in adjacent areas have, as a result of the Board's operations, urged an extension of the boundary, so that they might be included in the area within which direct State Control through purchase is in operation.

Similar work, on a smaller scale, under direct State ownership, has been done at Invergordon and Enfield with good results.

CHAPTER XVI.

THE MINISTRY OF RECONSTRUCTION.**I. Earlier Stages.**

There have been three distinct stages in the arrangements made by the Government for dealing with Reconstruction problems in this country, and the principles underlying the arrangements at each stage afford an interesting subject for comparison.

Until the date of the formation of the present Government, the subject of Reconstruction stood referred to a Committee consisting exclusively of Ministers of the Crown who were members of the Cabinet. Attached to this body, which was not so much a Cabinet Committee temporarily established for the consideration of a particular question, as a Standing Committee constituted on the analogy of the Committee of Imperial Defence, was a small Secretariat devoting its whole time to the business of the Committee, and differing in size, in personnel, and in the nature of its functions from the staff of an administrative Department.

These differences, which were recognised from the first and have been more and more fully expressed in the successive stages of the organisation, are, briefly, that those who are specifically entrusted with the consideration of Reconstruction problems must reduce to a minimum any duties in the nature of current administration which may tend to fall upon them, and must make it their primary business not so much to act themselves as to be the cause of action by other Departments and by members of the community as a whole.

After the present Government took office, there was a period of about three months during which the Sub-Committees of the former Cabinet Committee continued their work and the permanent staff forwarded reports to the Prime Minister. The subjects dealt with were as follows :—

- Agricultural Policy.
- Demobilisation of the Army.
- Acquisition of Powers.
- Coal Conservation.
- Aliens.
- Forestry.
- Relations between Employers and Employed.
- Women's Employment.

But, in the light of facts which emerged in course of time, it became clear to the present Government that a Committee of Ministers was not the most perfect instrument for the work with which it had been appointed to deal. With the

prolongation of the war the problems themselves expanded in every direction. The disturbance of normal industry grew more and more profound; not only were fit men of military age withdrawn in progressively increasing numbers from their normal occupation, but the free circulation of supplies of war material of every kind, of the means of transport, and of food, proved to be impossible to maintain. In one province of national life after another the Government were being compelled to regulate the course of business in the interest of the primary needs of the nation, and it followed that the problem of the return to normal conditions underwent so vast a change in scope as to become new in kind.

The action taken by the Government in March, 1917, definitely recognised the new situation and created a new authority for Reconstruction purposes. This authority was a Committee of which the Prime Minister was Chairman and Mr. Montagu, who was at that time not a member of the Government, the Vice-Chairman and the executive head. The remaining fourteen members of the Committee were selected on the principle of entrusting to a body possessed of specialised knowledge in many branches the task of conducting a general survey of the great territory which was now seen to be their province. They included Members of Parliament who had shown a special concern with some of the problems under review; representatives of Labour, both men and women; men of standing in the world of business and finance; and men and women well versed in the social questions of the past and qualified to anticipate the developments of the future.

The Sub-Committees of the former Cabinet Committee were confirmed in their position and their work was continued and reviewed periodically by the Reconstruction Committee.

The following new Sub-Committees were appointed :—

- Adult Education.
- Civil War-Workers Demobilisation.
- Acquisition of Land.
- Machinery of Government.
- Local Government.
- Ministry of Health.

And, besides the subjects coming within their terms of reference, the following received special attention :—

- Housing.
- Unemployment.
- Physical Training.
- Juvenile Employment and Apprenticeship.
- The Supply of Raw Materials.
- Shipping.

Within certain limits which are explained below, the Committee fully satisfied the expectations which were aroused by their appointment. They were not, as Ministers of the Crown must inevitably be, primarily concerned with matters arising out of the actual conduct of the war. They had no administrative

duties, but they were commissioned to anticipate the urgent difficulties of the future, and to provide in advance, as far as possible, for the ready adjustment of the machinery of government to the new tasks which would need to be put in hand without delay on the conclusion of the war. To these duties they addressed themselves by carrying out a systematic survey of the inquiries already instituted at the direction of the Committee of Ministers, and by arranging for further inquiries to be begun in relation to matters which had come to fall within the sphere of their terms of reference. They were successful in forwarding the progress of many existing inquiries, in initiating or causing to be initiated other inquiries which are now yielding fruitful results, and in securing for the Government that, subject to the modifications which time and the events of the war must always bring, no part of the province of Reconstruction should be barren for want of inquiry and attention.

II. Establishment of the Ministry.

But in July, 1917, the Government decided that the problems of Reconstruction had passed into a third stage, and they proposed to Parliament to give immediate effect to their view by establishing under the New Ministries Act, 1917, a Ministry of Reconstruction, to continue for the duration of the war and for a period of two years, or less, after its conclusion. The grounds of this decision were questioned in many quarters, and it did not pass without criticism either in Parliament or the country. But the reasons for it were clear at the time, and have been greatly reinforced in the six months' experience of the working of the Department. These reasons were in part, as the establishment of the Reconstruction Committee revealed, inherent in the constitution of the country. The Reconstruction Committee relieved already over-burdened Ministers from unaided responsibility for considering Reconstruction problems. But what the Committee gained in concentration of thought it was apt to lose in motive power. A Prime Minister upon whose shoulders fell the responsibility for the conduct of the war could not personally assume a day-to-day responsibility for guiding the Reconstruction Committee's work. The position of the Vice-Chairman was not one of Ministerial responsibility, or of association with any lines of policy followed by the Government which might bear closely upon the course of events after the war. The Reconstruction Committee as an instrument of government was therefore wanting in provision for effective contact either with Ministers responsible for the great Departments of State, or with the War Cabinet, from whom alone decisions on important issues could be sought.

Apart from these constitutional difficulties, the Government had throughout been aware that, as the war continued, and its pressure upon every side of the national life increased, the intensity of the struggle in itself enhanced the importance of the Reconstruction problems which had to be faced. Parliament and the country were not slow in realising that there was coming

into existence a series of questions of the utmost importance to which answers must be found, not after, but before, the conclusion of the war, if the determinations of Parliament were to be satisfactorily translated into action.

The New Ministries Act, 1917, was therefore intended both to secure that there should be a Minister answerable to Parliament for the progress made in considering the various problems within his sphere, and that the machinery of government should include a Department specially equipped for this purpose and devoted solely to preparing for the difficulties of the future. In other words, the Act asserts the primary importance in relation to Reconstruction of organised thought as distinct from executive action. The country is for the first time equipped with a Department not devoted to research in the field of the physical sciences, but to research into questions of political science and to the encouragement of action on the lines of the results ascertained.

III. Functions of the Ministry.

The functions of the Minister of Reconstruction who assumed office in August, 1917, are defined as follows :—

“ To consider and advise upon the problems which may arise out of the present war and may have to be dealt with upon its termination, and for the purposes aforesaid to institute and conduct such enquiries, prepare such schemes, and make such recommendations as he thinks fit; and the Minister of Reconstruction shall, for the purposes aforesaid, have such powers and duties of any Government Department or authority, which have been conferred by or under any statute, as His Majesty may by Order in Council authorise the Minister to exercise or perform concurrently with, or in consultation with, the Government Department or authority concerned.”

Two speeches made from the Treasury Bench during the progress of the Bill may be quoted as the best explanation that could be given both of the intentions of the Government in establishing the Ministry, and of the actual method of work that has been followed during the six months of its existence.

The Home Secretary said :—

“ The functions of the Minister will, of course, not be to any substantial extent executive functions. The Department will be mainly advisory. The Minister will appoint Committees, or take over existing Committees and receive their reports. He will institute on his own initiative experiments in matters connected with his functions. He will frame schemes for after-war action, or for action with a view to conditions which will arise after the war, and submit them to the War Cabinet, and he will indicate the Department by which those schemes could best be carried out. He will certainly not act in opposition to or in competition with any other Department. He will have conferred upon him certain powers now vested in other Departments of State.

His powers will not be exclusive. They will not shut out the action of other Departments. They will be concurrent and will be exercised in co-operation with the other Departments. In short, it will be his duty to assist the other Departments, to provide them with information and with proposals and to help them to build a bridge which will safely carry us over from war to peace conditions."

The Solicitor-General, speaking of the case in which more than one Department is concerned in a question, said :—

"What happens? Each one of those Departments, approaching the problem from its own point of view and within limits proper to the Department, makes a report or draws up a memorandum. Every separate Department approaches the matter in that way, and what is needed is a co-ordinating mind, not specially attached to the work or to the traditions of any one of the Departments concerned, but a comprehensive co-ordinating mind, a fresh mind, and at the same time an authoritative mind, who will bring together the several contributions of the various specialised Departments, and out of that complicated material arrive at what? Something that then and there upon the authority of the Minister must be done? No, but at a timely and well-considered recommendation. What he is to be able to do is to make recommendations, and, as a Minister, he will have access to the War Cabinet. Where, as is so often the case in these matters, it is desirable that action should be taken without delay, there will be a ready means of communication with the Minister who has all the threads in his hands, and the War Cabinet will then initiate, it may be, a proposal for immediate legislation."

To express the same idea in another way—The business of the Ministry is to be acquainted with all proposals for dealing with post-war problems which are under consideration by Government Departments or Committees, or put forward by responsible bodies or persons, to study them in their bearings upon each other, to initiate proposals for dealing with matters which are not already covered, and out of all this material to build up in consultation with the other Departments for submission to the Cabinet, and ultimately to Parliament, a reasoned policy of Reconstruction in all its branches.

IV. Administration.

For the purposes of administration the Department has been divided into branches dealing respectively with Commerce and Production, including the supply of materials; with Finance, Shipping and Common Services; with Labour and Industrial Organisation; with Rural Development; with the Machinery of Government, Central and Local, Health, and Education; and with Housing and Internal Transport.

Further, to assist him in considering the many and varied proposals which come before him, the Minister has created an

Advisory Council representative of all the leading interests concerned in Reconstruction, and it is his hope by consulting the Council freely and regularly to secure a representative consensus of opinion on any proposal which may be referred to him for advice or which may be initiated in the Department.

The Council is organised as follows :—

One Section will deal with Production and Commercial Organisation; one with Finance, Transport and Common Services; one with Labour and Industrial Organisation; and the fourth with Social Development, including Agriculture, Education, Health and Housing.

The membership has been so arranged that in each Section all the principal interests represented on the Council should find a place; thus there are representatives of Labour on the Finance Section as well as financiers, business men as well as agriculturists on the Section dealing with Agriculture, and so on.

The Sections will have access to all the material collected in the office bearing on any subject referred to them for advice, and on the other hand the officials in charge of branches will attend meetings and take part in the discussions.

The proceedings will, of course, be private, since on no other conditions would it be possible to communicate freely the information which it is desirable that the Council should have. The Council will not meet for general discussion, but to deal with specific references. The first set have already been communicated; they deal with the standardisation of railway equipment, the post-war rationing of industries, the establishment and functions of Trade Organisations, the organisation of Rural Information Centres, the establishment of Industrial Courts, house planning from the point of view of domestic economy, the future organisation of voluntary women's work, and the conditions required for maintaining a supply of efficient agricultural labour: taken together they indicate both the wide range and the practical character of the topics to be handled.

At the beginning of the year the chief questions immediately under consideration (in all cases in co-operation with the other Departments affected) are :—

A. Commerce and Production.

- (1) The Supply and Control of Raw Materials after the War, which is being investigated by a Committee.
- (2) Financial Facilities for British Commerce and Industry after the War. A Committee has been appointed with the concurrence of the Treasury.
- (3) The preservation of industries which will play an essential part in reconstruction, but are in danger of extinction through failure of supplies of material or labour. This problem is being dealt with in consultation with the Priority Organisation of the Cabinet.

- (4) Financial Risks attaching to the holding of Trading Stocks.
- (5) Trusts and Combinations, with special reference to the protection of the consumer.

Committees are being appointed to deal with both these questions.

- (6) The Establishment of New Industries after the War. A Committee has been appointed to consider this question, as far as the engineering trade is concerned; it has already compiled a preliminary list of articles which might be produced in this country, and the Minister has appointed a parallel Committee to consider the labour questions involved.
- (7) The volume and nature of the demand for British goods after the war.
- (8) Improvements in Trade Organisation for the purposes of more economical production, distribution and marketing, and of facilitating and expediting the turn over from peace to war.

These last two questions are being handled in consultation with the Board of Trade and the Department of Overseas Trade and a comprehensive scheme of work has been prepared.

The Ministry of Munitions also is co-operating in obtaining information from the Controlled Establishments.

The problem may be stated thus: After the war there will be a world shortage of certain materials and the shortage will be accentuated by the difficulty of finding tonnage adequate to our demands. On the other hand, there will be an almost unlimited demand for manufactured goods.

The Ministry of Reconstruction in concert with the Board of Trade has undertaken to estimate and analyse the supply. The Board of Trade and the Department of Overseas Trade will, it is hoped, by enquiry of the trades themselves, of the Dominions, Colonies, India, and Allies, and by examination of other sources of information, produce a corresponding estimate and analysis of the demand, and the results of both enquiries will be used to determine in what order demands shall be met which cannot all be met at once, in what proportion raw materials shall be directed into certain channels, in what directions the demand for Labour, Power, Tonnage and Credit is likely to be most intense, and what emergency arrangements will be required to meet it.

It is not a question of arbitrary restriction or of protecting some industries or developing others—it is a question rather of directing to the most productive purposes such materials as will in fact be available, and of furnishing industry with the necessary facilities, including information, for making those purposes effective.

The desire of the Government is to leave the industries to ration

themselves under certain general principles for which the Government must take responsibility. What those principles should be and what form of central machinery should be devised for this purpose is one of the first questions on which the Advisory Council is being asked to report.

B. Finance, Shipping and Common Services.

- (1) In conjunction with the Treasury, a Committee has been set up to consider the question of Currency and Exchange after the war.
- (2) The Advisory Council on the disposal of Government Stores has begun work.

This is a matter which the Government regard as being of great importance.

The total volume of surplus property which will be on the hands of the War Departments at the end of the war will be enormous, and in dealing with it the Government have two main objects in view. The first is to protect the taxpayer from improvident selling; the second is to protect markets and therefore labour from the dislocation which will inevitably result if, for instance, some tens of thousands of motor vehicles and some hundreds of miles of wire are released for sale at once.

They have decided, therefore, to entrust the whole executive arrangements for disposal to a specially created body, which will act as salesman for any Government Department having surplus stores to dispose of.

At the same time the general principles and policy governing any alternative form of use or disposal, for instance, whether certain goods should be sold in France or brought home; whether motor lorries should be thrown on the market or reserved for the use of public bodies for the development of agricultural transport, will be settled by the Advisory Council, for which the Minister of Reconstruction will be responsible. In other words, the Advisory Council will certify certain articles as disposable and will indicate the lines on which they are to be disposed of, and the executive body will then proceed within the limits laid down to make the best bargain for the taxpayer.

C. Labour and Industrial Organisations.

(1) Trade Organisations.

It has been agreed between the Board of Trade, the Ministry of Labour, and the Ministry of Reconstruction, that a concerted effort should be made to promote in as many industries as possible representative organisations to advise the Government as to the views and needs of the industries on the various industrial and commercial problems that will affect them during the Reconstruction period.

The creation of the organisations in question is not intended in any way to prejudice the formation of Joint Industrial Councils, but is designed as an emergency measure to facilitate the transi-

tion from war to peace conditions, and to expedite the establishment of permanent Industrial Councils and the determination of their functions.

The Ministry of Labour will, therefore, proceed with the formation of Industrial Councils, and the three Ministries will co-operate in the establishment of the interim organisations referred to. For this purpose there will be a standing Conference on Trade Organisations at the Ministry of Reconstruction, consisting of three employers, three trade unionists, and representatives of the three Departments. The functions of the Conference will be :—

- (a) to classify trades for the purpose of promoting representative organisations in each,
- (b) to advise as to the manner in which each trade should be approached, and the persons and existing organisations who should be consulted, and the matter to be placed before them.

The Minister of Reconstruction has decided to refer to the Industrial Section of his Advisory Council the question of establishing corresponding organisations in engineering and railways, and at the same time of determining their functions with regard to agreements as to rates of pay, hours and working conditions. The Standing Conference will, therefore, not be asked to include these industries within their purview.

The Ministry of Reconstruction will be responsible—

- (1) (a) for all executive work arising out of recommendations of the Conference and the Industrial Section of the Council when approved by the Minister, including the summoning of Conferences and the preparation of statements as to the functions and constitution of the organisations which they will be invited to assist in creating, and
- (b) for following and expediting the subsequent proceedings until the organisations are established.
- (2) The Whitley Committee has submitted to the Prime Minister its Reports on Unorganised Trades and Works Committees, and is completing its Report on Conciliation and Arbitration.
- (3) A general survey of Industrial Policy as a whole has been prepared, and the following branches are being examined in detail :—
 - (a) The Law relating to Merchant Shipping.
 - (b) Labour in Merchant Shipping.
 - (c) War-time departures from Trade Union practices.
 - (d) Industrial Courts.
 - (e) Industrial Structures.
 - (f) Apprenticeship.

(g) Reinstatement of returning Soldiers and Sailors.

(h) International Labour Legislation.

- (4) In agreement with the other Departments affected, a survey has been undertaken of Industrial Methods. As part of the enquiry, a special investigation has been made into the organisation of the woollen and worsted trade, as an example of joint control, and into the arrangements made in the West Riding dyeing industry for providing security of employment. The working of the Cotton Control Board is now being investigated.
- (5) An enquiry is being made jointly with the Ministry of Labour into the question of Juvenile Employment.
- (6) The Civil War-Workers Demobilisation Committee and the Women's Employment Committee are continuing their enquiries.
- (7) The question of Army Demobilisation has, apart from a few points which still remain to be determined, passed into the executive phase and is in the hands of the War Office and Ministry of Labour. Broadly speaking, the division of functions is—the War Office is responsible for the man until he leaves the Army, and the Ministry of Labour is responsible for him until he re-enters employment.

Since demobilisation must in the most favourable circumstances be a slow process and must be conducted in some order, the War Office and the Ministry of Labour will in conjunction with the Ministry of Reconstruction determine the priority of different trades on the basis of the information obtained by the Ministry, and on the general principle that the essential industries shall be served first. The results of the enquiries already referred to as to the post-war demand for goods and the supply of materials and manufacturing facilities will be available for their guidance.

- (8) In order that so far as possible surplus labour may be usefully and rapidly absorbed after the war, a complete list of public works which have fallen into arrear is being prepared.
- (9) The special problems arising out of the work of the Ministry of Munitions are being considered by a Reconstruction Committee of that Department.

D. Rural Development.

The Ministry is working, in association with the Board of Agriculture, on Land Settlement; a general survey of Agricultural Policy has been prepared, and the material is being brought together for a review of the Land question as a whole. The

question of instituting an enquiry into Rating is under consideration. The following questions have received special examination :—

- (1) The working of the Small Holdings Act, 1908, and the future of Urban War Allotments.
- (2) The Report of the Forestry Committee has been published and a scheme has been prepared in consultation with the departments concerned for the consideration of the Government.
- (3) The Rural Housing Problem.
- (4) The organisation of County Offices for advice and information on agriculture, on which proposals are being discussed by the Advisory Council.
- (5) Tithe Redemption.
- (6) Village Industries.
- (7) The Land Acquisition Committee has reported.

E. Machinery of Government, Health, Education, &c.

- (1) Lord Haldane's Committee on the distribution of functions between Government Departments is continuing its enquiries and negotiations are proceeding with the Departments and outside bodies concerned with regard to the formation of a Ministry of Health.
- (2) The Committee on Local Government have presented a Report on the functions of Poor Law Authorities which has been published.
- (3) A Committee on Adult Education has been appointed and has made considerable progress.

F. Housing and Internal Transport.

In consultation with the Departments affected, a Housing Programme has been prepared for submission to the Cabinet.

With a view to facilitating work in connection with Housing the following Committees are at work :—

- (1) The Committee on the Supply of Building Materials is collecting information from the trade as to its probable requirement in material and labour.
- (2) The Housing (Building Construction) Committee set up by the Local Government Board in consultation with the Minister of Reconstruction.
- (3) The Committee on Building Bye-laws.

Special investigations have been made into the following points :—

- (1) Control of Public Utility Societies.
- (2) Town Planning.
- (3) Rings in the Building Trade.
- (4) The working of the Small Dwellings Acquisition Act.

A general review of the problem of Inland Transport is now being prepared. The sections dealing with Roads and Canals are completed; the Department is in consultation with the Board of Trade as to the future of the Railways (including light railways) and an enquiry has been begun into the question of Storage and Distribution as essential elements in Transport policy.

General.

An important part of the work of the Ministry is the examination of all proposals from a legal point of view with a view to determining what amendments of the existing law are involved. Side by side with this, the large volume of emergency enactments and orders has to be reviewed in their bearing on the immediate post-war problem and the situation that will be produced by their expiry or repeal.

CHAPTER XVII.

FINANCIAL SUMMARY.**I. Internal Finance. Borrowing Arrangements.**

The internal financial position of this country when the present Government came into power in December, 1916, clearly rendered it necessary that some action should be taken with a view to funding the Floating Debt, which at that time had reached very considerable proportions. During the period of the War two long term War Loans had been raised in this country—

- (1) the $3\frac{1}{2}$ per cent. War Loan issued in November, 1914, for the fixed amount of £350,000,000.
- (2) the $4\frac{1}{2}$ per cent. War Loan issued in June-July, 1915, which, exclusive of conversions, amounted to £587,196,000.

Since the issue of the $4\frac{1}{2}$ per cent. Loan the expenses of the War had been financed for the most part by short term borrowings in the form of the sale "over the counter" of Treasury Bills at varying rates of interest and of Exchequer Bonds, the latter bearing interest at the rates of 5 per cent. (in the case of those issued between December, 1915, and September, 1916) and 6 per cent. (in the case of those issued from October, 1916, to December, 1916). The result had been that by December, 1916, the Floating Debt had risen to a very high figure, the Treasury Bills outstanding at the 31st December amounting to no less than £1,115,815,000.

It was in these circumstances decided that it would be necessary to issue a further loan, which besides raising additional funds for the prosecution of the War would enable the Treasury to reduce the Floating Debt, and on January 11th, 1917, a meeting was held at the Guildhall at which the War Loan Campaign was inaugurated and the terms of the new Loan explained by the Prime Minister and the Chancellor of the Exchequer. In the meantime, in preparation for the Loan, the sale of the 6 per cent. Exchequer Bonds had been suspended on the 30th December, 1916, while the sale of Treasury Bills had been discontinued on the 11th January, 1917.

The chief features of the new Loan were :—

(1) That the issue should take two alternative forms :—

- (a) a 5 per cent. Loan at the price of £95 for every £100 stock (*i.e.*, a yield of £5 6s. 10d. per cent. subject to Income Tax).
- (b) a 4 per cent. Loan at par Income Tax compounded (*i.e.*, a yield of 4 per cent. free of Income Tax),

the 5 per cent. Loan being repayable in or before 1947, the 4 per cent. in or before 1942, subject to the Government's right to redeem either at par at any time after 1929 on three months' notice.

(2) That a special Fund should be formed to provide against depreciation in the Market prices of the Loans, and that for this purpose the Treasury should set aside monthly a sum equal to one eighth of 1 per cent. of the total amount of the loans to be used for purchasing stock whenever the market price fell below the issue price—subject to the proviso that whenever the unexpended balance of the Fund reached £10,000,000 the monthly payments should for the time being be suspended, and should be resumed again as soon as the unexpended balance fell below £10,000,000.

(3) That the Stock or Bonds should be accepted in satisfaction of Death Duties, subject to the condition that the stock or bonds must have formed part of the estate of the deceased for a period of not less than 6 months immediately preceding the date of death (or continuously from the date of the original subscription).

Notwithstanding the fact that the rate of interest offered was lower than had been anticipated in many quarters, the Loan proved a triumphant success. A wave of patriotism, fostered by the activities of the local War Savings Associations and by the Press, swept over the country, with the result that the Chancellor of the Exchequer, when announcing the final result of the Loan on the 26th February, 1917, in the House of Commons, was able to say that the total amount of new money subscribed (including conversions of Treasury Bills and sales of War Savings Certificates) amounted to over £1,000,000,000, no part of which represented direct subscriptions from the Banks.

The following figures may be of interest as illustrating the magnitude of the results obtained :—

(1) 5 Per Cent. War Loan.

Applications through the Bank of England and Post Office :—

(i) Stock paid for by new money including subscriptions for rounding up holdings	£844,802,332
(ii) Stock paid for by conversion of Treasury Bills and War Expenditure Certificates	130,205,100

(2) 4 Per Cent. Loan.

Stock paid for by new money	£22,046,000
Stock paid for by conversion of Treasury Bills and War Ex- penditure Certificates	612,500

(3) Amount of War Savings Certificates purchased during the period of Loan (approximately)	24,000,000
(4) Number of subscribers :—	
(a) Through the Bank of England	1,090,882
(b) Through the Post Office	1,060,516
(c) Subscribers represented by the sale of War Savings Certificates (estimated)	3,200,000
	<hr/>
Total subscribers	5,351,398
	<hr/>
(5) The total number of subscribers, having regard to scheme whereby persons subscribed for War Loan Stock and War Savings Certificates by instalments, may perhaps be estimated roughly at	8,000,000

Chief amongst the causes contributing to the success of the Loan must probably be placed the work and organisation of the local War Savings Associations. Their activities during the past year can best be judged by the fact that the number of Associations has increased from 15,897 on December 12th, 1916, to 36,157 on October 30th, 1917, and that while the total amount of War Savings Certificates sold for the period from the 22nd February, 1916, to the 31st December, 1916, was 54,664,000 the total amount sold by the 30th October, 1917, stood at 124,975,200

Among the results of the loan it may be mentioned that the amount of Treasury Bills outstanding on the 31st March, 1917, amounted only to £463,705,000, as compared with £1,115,815,000, which had been outstanding on the 31st December, 1916.

The lists for the War Loan closed on the 16th February, 1917, and when the market conditions appeared favourable for the resumption of borrowing operations, the Treasury reverted to the former policy of short term borrowings in the form of Treasury Bills and Exchequer Bonds, the former being offered for sale by public tender from the 3rd April, 1917, to the 20th June, when sales over the counter were resumed, while a fresh issue of Exchequer Bonds bearing interest at 5 per cent. was made on the 12th April, 1917. This policy continued until the 22nd September, 1917, when the issue of these Bonds was suspended, the total amount realised by their sale since the 12th April having been £82,110,000 (approximately).

The 2nd October, 1917, witnessed a new departure in policy in the shape of an issue of National War Bonds, the chief features of which are :—

(1) That the investor is offered the choice of the following alternatives :—

A. (a) 5 per cent. Bonds (the interest on which would be subject to Income Tax) repayable on the 1st October, 1922, at 102 per cent., the annual yield to the

investor after making allowance for the annual value of the redemption premium on a $5\frac{1}{4}$ per cent. basis (accumulated yearly) being £5 7s. 2d.

(b) 5 per cent. Bonds (the interest on which would be subject to Income Tax) repayable on the 1st October, 1924, at 103 per cent., the annual yield calculated as above being £5 7s. 4d.

(c) 5 per cent. Bonds (the interest on which would be subject to Income Tax) repayable on the 1st October, 1927, at 105 per cent., the annual yield calculated as above being £5 7s. 10d.

B. 4 per cent Bonds (Income Tax compounded) repayable at par on the 1st October, 1927, the annual yield being 4 per cent. (Income Tax compounded).

(2) that holders of the 5 per cent. and 4 per cent. Bonds have the right of conversion into the 5 per cent. and 4 per cent. War Loans respectively, and that in the event of future issues (other than issues made abroad or issues of Exchequer Bonds, Treasury Bills, or similar short-dated securities) being made by His Majesty's Government for the purpose of carrying on the War, Bonds of this issue will be accepted at par as the equivalent of cash for the purpose of subscriptions to such issues.

The policy underlying this issue represents an attempt to procure by steady day-to-day borrowing the money that is required for the financing of this country's expenditure, and to obviate, if possible, the inevitable dislocation which must attend the issue of a long dated War Loan on any scale similar to that of the previous War Loan. The following statement of figures will serve to show the results that were obtained up to the 15th December, 1917, from the issue of these Bonds :—

NATIONAL WAR BONDS.

Amount applied for.

—	Through Bank of England.	Through Post Office.
For the week ended—	£	Issue began on
October 6th, 1917	16,596,450	15th October.
„ 13th, 1917	21,394,600	£
„ 20th, 1917	18,235,150	504,000
„ 27th, 1917	13,927,750	461,000
November 3rd, 1917	12,338,000	374,000
„ 10th, 1917	9,791,600	292,000
„ 17th, 1917	10,806,350	303,000
„ 24th, 1917	12,339,150	285,000
December 1st, 1917	13,025,900	515,000
„ 8th, 1917	23,039,250	2,235,000
„ 15th, 1917	17,800,200	3,901,000
Total	£169,294,400	£8,870,000

REVENUE.

On the 2nd May, 1917, when the Chancellor of the Exchequer introduced the Budget he was in the fortunate position of being able to announce that the Revenue for the preceding year had exceeded the estimates framed by his predecessor by no less than £71,153,000 and that the total revenue for that year had amounted to £573,428,000. He also made the statement that of the total national expenditure during the War up to the end of the financial year 1916/17 (£4,318,000,000) no less than 26 per cent. had been provided out of revenue.

For the year 1917/18 the Chancellor decided not to impose any new taxes, but to confine his proposals for increased taxation to taxes already in force. The rate of Excess Profits Duty was raised from 60 per cent. to 80 per cent., and small increases were made in the rates of the Entertainments Duty and the Tobacco Duty.

The estimates made in connection with the Budget placed the total revenue for the current financial year at £638,600,000, but on the basis of the revenue already collected it is safe to say that this estimate will be more than realised.

EXPENDITURE.

In his Budget speech on the 2nd May, 1917, the Chancellor of the Exchequer stated that the total expenditure for the year 1916/17 had been £2,198,113,000, which represented an increase of £372,733,000 over the estimate that had been made in connection with the previous Budget. Of this total £1,973,665,000 represented expenditure out of the Votes of Credit, and it was in connection with this expenditure that almost the whole of the increase over the estimates had occurred, no less than £100,000,000 of the increase being accounted for by loans to the Allies and Dominions. On the basis of these figures the daily rate of total expenditure for the year 1916/17 worked out at approximately £6,022,200, the daily rate of expenditure out of the Vote of Credit being £5,407,300 (approximately). For the year 1917/18 the estimated total expenditure as proposed by the Chancellor in his Budget speech was £2,290,381,000, the portion of this total representing estimated Vote of Credit expenditure being £1,975,000,000. On this basis the estimated daily average was £6,275,000. for total expenditure, and £5,411,000 for Vote of Credit expenditure.

While the actual expenditure for the period from the 1st April, 1917, to the 1st December, 1917, has considerably exceeded not only the rate of expenditure for the year 1916/17, but also the Budget estimate, it is impossible to obtain a correct impression of the true position without analysing the increase and enquiring into the causes to which this increase is due.

For the period from the 1st April, 1917, to the 1st December, 1917, the total Exchequer issues for expenditure (including Con-

solidated Fund Services and Supply Services) were £1,799,223,000, representing a daily average for that period of £7,344,000 or an increase of £1,069,000 over the estimated daily rate. So far as the Consolidated Fund Services and ordinary (*i.e.*, Peace) Supply Services are concerned, the estimate has not been exceeded to any appreciable extent, any increase in the expenditure under these heads over the corresponding figures for 1916/17 being due to causes that could be clearly foreseen when the estimate was made, *e.g.*, the increase in the Debt charge. An analysis of the growth of expenditure for this period can therefore be confined to the Vote of Credit expenditure, which for the period necessitated cash issues, in all, of £1,638,000,000, or an excess of £309,000,000 over the estimate, the daily average for the period being £6,686,000 as compared with the estimated daily average of £5,411,000.

On analysing these figures and enquiring into the causes and nature of the increase two important features are brought to light :—

- (1) that the expenditure out of the Vote of Credit for the first 5 weeks of the half year reached a very high level, and that that level has not been maintained : in fact, the figures for the latter part of the period show a considerable decrease ;
- (2) that a great part of the increase in the expenditure over the estimate represents expenditure of a recoverable nature.

The following statement of figures will serve to illustrate the former feature :—

VOTE OF CREDIT EXPENDITURE.

	For the period 8th October to 9th Decem- ber, 1916.	For the period 1st April to 5th May, 1917.	For the period 6th May to 21st July, 1917.	For the period 22nd July to 29th Septem- ber, 1917.
Total	360,000,000	261,000,000	500,000,000	449,000,000
Daily Average ...	5,714,000	7,457,000	6,494,000	6,414,000

	For the period 1st April to 21st July, 1917.	For the period 1st April to 29th September, 1917.	For the period 30th September to 1st December, 1917.
Total	761,000,000	1,210,000,000	428,000,000
Daily Average ...	6,795,000	6,648,000	6,794,000

As regards the second feature it was stated by the Chancellor of the Exchequer in his Vote of Credit Statement on the 12th December, 1917, that of the total increase over the Budget

Estimate (*viz.*, £309,000,000) no less than £225,000,000 represented recoverable expenditure, the first item in this total being an increase of £79,000,000 in loans from this country to the Allies and Dominions. The largest item, and an item of considerable importance in that it throws a light on the definite policy adopted by the Government, is the expenditure incurred by the State in the purchase of stocks which are to be resold at a later date. It has been found increasingly necessary during the year for the State to assume the responsibility of buying for resale food stuffs and other raw materials, and the fact that the amounts expended on the purchase of such articles have not been fully realised by sales effected has helped to swell the figures of this country's gross expenditure, though it must be recognised that such expenditure is recoverable at a later date. The proportion of the increase which represents expenditure of this character was £89,750,000.

The following figures serve to show how the total amount of the recoverable expenditure already mentioned has been arrived at:—

	£
Increase in Loans to Allies and Dominions ...	79,000,000
Increased expenditure on purchase of Stocks, and in respect of Shipping	89,750,000
Balances in hands of Agents, etc.	29,250,000
Expenses recoverable from Dominions on account of maintenance, &c., of their troops in the field ...	27,000,000
Total ...	£225,000,000

From this analysis it will be seen that the actual dead weight of the increased expenditure over the estimate for the period from 1st April, 1917, to 1st December, 1917, amounted to £84,000,000, an increase which may be attributed mainly to the following causes:—

- (1) The general rise in prices at home and abroad.
- (2) The growth of the Army serving abroad.
- (3) The increase in the material required by the Army owing to the progress of operations.
- (4) The increased demands of aviation.

So far as the future is concerned it is not anticipated that any reduction can be made in the present rate of expenditure. The increase recently made in the pay of the soldiers and sailors, and the establishment of a fixed price for bread have thrown additional burdens on the Exchequer, which must result in a further increase in the rate of National expenditure.

EXTERNAL FINANCE.

While the regulation of this country's external finance and the maintenance of our Exchanges with foreign countries must be regarded as one of the vital factors in the prosecution of the

War—a fact to which the Government has been fully alive—at the same time there is very little information on this subject which it would be in the public interest to publish at the present time. It will only be at the conclusion of peace, when the full history of the War can be written, that it will be possible to divulge the full extent of the financial efforts put forward by this country, and of the serious financial problems with which the Government has been faced.

The case of Germany is sufficient to illustrate the fact that the problems of internal finance are easy of solution as compared with the problems that are involved in the maintenance of foreign exchanges, and in the case of this country no financial problem has presented such difficulties as the regulation of our financial arrangements with the United States of America prior to the entry of that country into the war on the side of the Allies. It was with a view to taking these problems in hand that the Government sent Sir Hardman Lever, the Financial Secretary to the Treasury, to the United States of America in February, 1917, where he has remained until the present time.

Since the entry of the United States into the war, the American Government has lightened our task by making direct advances to finance Allied purchases generally in that country.

The policy of this Government throughout the war has been to assist the Allies financially to the utmost of its power, and the fact that it has succeeded in carrying out this policy is shown in the fact that the total amount of the obligations in respect of advances to the Allies during the war up to the 1st December, 1917, was no less than £1,186,000,000.

In addition to this, the obligations created in respect of advances to the Dominions for the same period totalled £175,000,000.

IMPERIAL FINANCE.

The foregoing is an outline of war finance so far as it relates to the United Kingdom. But no account of the finance of the United Kingdom can be complete without reference to and acknowledgment of the very large contribution made by the oversea peoples to the common cause. It must be remembered that the Governments of Canada, Australia, and New Zealand have borne throughout the whole burden of the cost of their own armies, and that South Africa has borne the whole cost of South-West Africa and a large part of the cost of maintaining its forces in East Africa. The larger part of the cost of the operations of the Indian Expeditionary Forces has been borne by the British Exchequer in accordance with the decision of Parliament, but the Indian Empire has been put to considerable expenditure in regard to its own preparations for war, and has also made the generous contribution of £100,000,000 towards the cost of the war. Liberal contributions in money and in kind have been

given by Crown Colonies and Protectorates. In addition, numerous and generous gifts have been received from the ruling princes and chiefs in India. The problem of financing overseas purchases has also been greatly assisted by the Government of India and the Dominion Governments themselves. It is not possible within the limits of this Report to give details of the financial operations of the Oversea Governments, but, in considering the financial efforts of this country, it is essential that the very large part played by the oversea peoples should be remembered.

CHAPTER XVIII.

LEGISLATION OF THE SESSION 1917-18.

The Bills which received the Royal Assent during the Session of 1917-18 may conveniently be grouped under the following headings :—

I. Financial.

In addition to five Consolidated Fund Bills and an Appropriation Bill, two financial measures were passed, viz. :—

Finance, which continued the Customs and Excise duties imposed by the Finance (No. 2) Act, 1915; increased entertainments, excess profits and tobacco duties; gave relief in certain cases in respect of liquor licence duty; established a depreciation fund for the 1929-42 loan; and amended the law relating to excess profits duty, income tax and the National Debt; and

War Loan which gives general power to the Treasury to raise money to meet the supply for the current year.

II. Relating to Parliament.

Parliament and Local Elections extends the life of the present Parliament for a further period of 7 months and provides for the postponement of local elections.

Parliament and Local Elections (No. 2) extends the life of the present Parliament for a further period of 8 months and provides for the further postponement of local elections.

Redistribution of Seats (Ireland) redistributes the seats at parliamentary elections in Ireland.

Representation of the People replaces existing parliamentary franchises for men in the United Kingdom (other than University franchises) by a single uniform franchise based on residence supplemented by a special franchise based on the occupation of business premises of a yearly value of £10 and conferring one additional vote in another constituency; makes special provision for enabling naval or military voters to be registered and to vote; confers the franchise on women over 30 to the number of some 6,000,000; reduces the period of qualification to six months, and provides for half-yearly registers; amplifies the University franchise and extends it to women; creates a uniform local government franchise; substitutes fresh registration procedure; provides for general elections being held on one day, and for the whole of returning officers' expenses and one-half of registration expenses being paid out of the Exchequer; and redistributes the seats in Great Britain.

Titles Deprivation establishes machinery by which peers or British princes who have borne arms against His Majesty may be deprived of their titles and dignities.

III. Relating to the Imperial Government.

Air Force (Constitution) provides for the establishment of an Air Council, presided over by a Secretary of State, and for the transfer thereto of the property, powers and duties of the Air Board and of such property, rights and liabilities of the Admiralty and Army Council as may be agreed (*see also* under IV.).

Ministry of National Service provides for the appointment of a Director-General of National Service and for the definition of his duties by Order in Council or regulations under the Defence of the Realm Acts.

New Ministries provides for the appointment of a Minister of Reconstruction and broadly defines his duties; and makes retrospective provision with regard to the seats of Ministers without portfolio.

IV. Relating to the Navy, Army and Air Force.

Air Force (Constitution) establishes the Air Force as an independent arm and provides for its discipline (*see also* under III.).

Army (Annual) Act (1916) Amendment alters the rates to be paid for billeting under the Army Act.

Military Service authorises the Director-General of National Service to withdraw certificates of exemption granted on occupational grounds.

Military Service (Conventions with Allied States) enables His Majesty to carry into effect conventions with Allied States as to the liability of their respective subjects to military service.

Military Service (Review of Exceptions) renders liable to military service members of the territorial force adjudged unfit for foreign service, men discharged from Navy or Army in consequence of ill-health or disablement (other than disablement from wounds, gas, &c.), and men previously rejected on medical grounds.

Naval Discipline amends s. 74 *a* of the Naval Discipline Act which relates to suspension of sentence.

Naval Discipline (Delegation of Powers) enables the Commander-in-Chief of the Grand Fleet to delegate powers in respect of courts-martial to all officers of flag rank.

Royal Naval Volunteer Reserve extends period of service of the Royal Naval Volunteer Reserve.

V. Relating to Pensions and Allowances.

Naval and Military War Pensions, &c. (Committees) provides for inclusion on local and district committees of representatives of disabled men and of women in receipt of pensions.

Naval and Military War Pensions, &c. (Transfer of Powers) effects transfer to the Minister of Pensions of the powers, duties and functions of the Statutory Committee.

Police Constables (Naval and Military Service) increases weekly allowance to dependants of married constables on naval or military service.

**War Pensions* regulates the payment of expenses of local and district committees; provides for the appointment of additional local committees; and makes other amendments of detail in the administration of pensions.

National Insurance (Part I. Amendment) adjusts the rates of sickness and disablement benefits payable to discharged sailors and soldiers in receipt of pensions for disablement in the highest degree; provides for the extension of medical and sanatorium benefits to uninsured invalided sailors and soldiers; and makes other administrative changes.

VI. Relating to Labour and Munitions of War.

Billeting of Civilians authorises the billeting of persons engaged on work certified to be of national importance, and lays down the constitution and duties of the Central Billeting Board and of local committees.

Munitions of War gives power to the Minister of Munitions to regulate rates of wages in certain industries; to extend to a minority the rates of wages current among the majority of those engaged on a particular class of work; to abolish "leaving certificates," substituting for them restrictions on the right to leave munitions work for private work; and otherwise amends in detail the Munitions of War Acts, 1915 and 1916.

National Health Insurance increases the benefit funds of approved societies in respect of their women members; establishes a "woman's equalisation fund" to meet excessive sickness claims from women; makes provision with regard to valuation deficiencies; and effects numerous amendments of a minor character. (*See* (Cd. 8896)).

National Insurance (Unemployment) gives power to the Minister of Labour to exclude from unemployment insurance any of the trades mentioned in the schedule to the National Insurance (Part II.) (Munition Workers) Act, 1916, and provides for the variation of the proportion of benefit to the number of contributions paid.

Societies (Suspension of Meetings) dispenses, during the war, with the obligation of approved societies, friendly societies and trade unions to hold the meetings prescribed by their rules or regulations.

* Subsequently the Naval and Military War Pensions &c. (Administrative Expenses) Act.

Trade Union Amalgamation lays down conditions under which two or more trade unions may be amalgamated.

Workmen's Compensation (War Addition) increases during the war the amount of compensation payable in cases of total incapacity.

VII. Relating to Agriculture.

Corn Production guarantees a minimum price to the growers of wheat and oats; provides for the payment of a minimum wage to agricultural labourers; restricts the raising of agricultural rents; and gives power to the Board of Agriculture to enforce the proper cultivation of land.

VIII. Relating to Commerce, Trade and Industry.

Bills of Exchange (Time of Noting) extends by one day the time for noting dishonoured bills.

Census of Production repeals the provision that a census of production shall be taken at fixed intervals.

Coal Mines Control Agreement (Confirmation) confirms an agreement between the Coal Controller and the Mining Association of Great Britain, whereby a certain proportion of the profits of successful mines is applied to the maintenance of a standard rate of profit for the less successful, and a district levy is authorised for the payment of compensation in respect of mines which are closed.

Coal Mines Regulation (Amendment) provides for the suspension, in certain cases, of the Coal Mines Regulation Act, 1908, in the case of mines other than coal mines, to which the provisions of that Act apply.

Companies (Foreign Interests) prohibits the alteration of articles restricting foreign interests in companies, except with the consent of the Board of Trade.

Companies (Particulars as to Directors) extends certain provisions of the Registration of Business Names Act, 1916, to companies not required to register under that Act.

Courts (Emergency Powers) gives power to courts to suspend or annul certain building contracts; gives relief in respect of certain contractual obligations; and otherwise amends the Courts (Emergency Powers) Act, 1914, and the Increase of Rent and Mortgage Interest (Restriction) Act, 1915.

Non-Ferrous Metal Industry prohibits persons from trading in zinc, copper, tin, lead, nickel and aluminium except under licence from the Board of Trade.

IX. Relating to Courts of Justice, Legal Procedure, &c.

Coroners (Emergency Provisions) reduces the number required for a coroner's jury during the war.

Grand Juries (Suspension) suspends during the continuance of the war the necessity for summoning Grand Juries.

Solicitors (Examination) effects a temporary alteration of the law relating to the qualifying examination of solicitors.

X. Miscellaneous.

Bishoprics of Bradford and Coventry provides for the foundation of bishoprics of Bradford and Coventry.

Chequers Estate confirms the deed of settlement giving Chequers Estate to the nation.

Ecclesiastical Services (Omission on Account of War) authorises a diocesan bishop to sanction the omission, during the war, of certain ecclesiastical services.

Fishery Harbours (Continuance of Powers) revives and continues temporarily the Fishery Harbours Act, 1915.

Metropolitan Police alters the limit on the amount to be raised by rates for the expenses of the Metropolitan Police.

National Registration (Amendment) extends the provisions of the National Registration Act to male persons who, since the passing of that Act, have attained the age of fifteen years, or have been discharged from the Navy or Army.

Railway Passenger Duty relieves railway companies of the obligation to keep separate accounts and make separate payments in respect of Railway Passenger Duty.

Venereal Disease prohibits the treatment of venereal diseases by unqualified persons and the advertisement of remedies for those diseases.

Wesleyan Methodists (Appointments during the War) extends during the war the period for which a Wesleyan Minister may occupy a chapel.

Wills (Soldiers and Sailors) explains and amends the law relating to the wills of sailors, soldiers and airmen on active service.

XI. Relating exclusively to Scotland.

Confirmation of Executors (War Service) (Scotland) provides during the war facilities for the expediting of confirmation in Scotland to sailors and soldiers.

Gaming Machines (Scotland) prohibits the use of gaming machines in Scotland.

XII. Relating exclusively to Ireland.

Education (Provision of Meals) (Ireland) removes the restriction on the amount to be expended by local authorities in the feeding of necessitous school children.

Local Government (Allotments and Land Cultivation) (Ireland) empowers local authorities in Ireland to provide land

for allotments, to hire land for the purpose and to provide seeds, manures, &c.

Midwives (Ireland) provides for the certification of midwives in Ireland and for the constitution of a Central Midwives Board for Ireland.

Public Health (Prevention and Treatment of Disease) (Ireland) provides for the enforcement of the epidemic disease regulations by the County Councils.

Redistribution of Seats (Ireland) see under II.

XIII. Annual Bills.

Army (Annual).

Expiring Laws Continuance.

Isle of Man (Customs).

Public Works Loans.

The following Government Bills, introduced into the House of Commons, failed to receive the Royal Assent :—

Criminal Law Amendment.

Education.

Education (No. 2).

Education (Scotland).

Imports and Exports (Temporary Control).

Ministry of Food (Parliamentary Secretaries).

Patents and Designs.

Petroleum (Production).

Trade Marks.

During the session 1917-18, 76 Government Bills (exclusive of Charity Bills) were introduced or brought from the Lords. 67 of these received the Royal Assent and nine failed to pass.

APPENDIX I.

Reply of the Allies to the President of the United States (January 10th, 1917.)

I. The Allied Governments have received the Note delivered to them on November 19 in the name of the United States Government. They have studied it with the care enjoined upon them both by their accurate sense of the gravity of the moment and by their sincere friendship for the American people.

II. In general, they make a point of declaring that they pay homage to the loftiness of the sentiments inspiring the American Note, and that they associate themselves wholeheartedly with the plan of creating a League of the Nations to ensure peace and justice throughout the world. They recognize all the advantages that would accrue to the cause of humanity and civilization by the establishment of international settlements designed to avoid violent conflicts between the nations—settlements which ought to be attended by the sanctions necessary to assure their execution, and thus to prevent fresh aggressions from being made easier by an apparent security.

III. But a discussion of future arrangements designed to ensure a lasting peace presupposes a satisfactory settlement of the present conflict. The Allies feel a desire as deep as that of the United States Government to see ended, at the earliest possible moment, the war for which the Central Empires are responsible, and which inflicts sufferings so cruel upon humanity. But they judge it impossible to-day to bring about a peace that shall assure to them the reparation, the restitution, and the guarantees to which they are entitled by the aggression for which the responsibility lies upon the Central Powers—and of which the very principle tended to undermine the safety of Europe—a peace that shall also permit the establishment upon firm foundations of the future of the nations of Europe. The Allied nations are conscious that they are fighting not for selfish interests but, above all, to safeguard the independence of peoples, right, and humanity.

IV. The Allies are fully alive to and deplore the losses and sufferings which the war causes neutrals, as well as belligerents, to endure; but they do not hold themselves responsible, since in no way did they desire or provoke this war; and they make every effort to lessen such damage to the full extent compatible with the inexorable requirements of their defence against the violence and the pitfalls of the foe.

V. Hence they note with satisfaction the declaration that as regards its origin the American communication was in no wise associated with that of the Central Powers, transmitted on December 18 by the United States Government; neither do they doubt the resolve of that Government to avoid even the appearance of giving any, albeit, only moral, support to the responsible authors of the war.

VI. The Allied Governments hold themselves bound to make a stand in the friendliest yet in the clearest way against the establishment in the American Note of a likeness between the two belligerent groups; this likeness, founded upon the public statements of the Central Powers, conflict directly with the evidence, both as regards the responsibilities for the past and the guarantees for the future. In mentioning this likeness President Wilson certainly did not mean to associate himself with it.

VII. If at this moment there be an established historical fact, it is the aggressive will of Germany and Austria to ensure their mastery over Europe and their economic domination over the world. By her declaration

of war, by the immediate violation of Belgium and Luxemburg, and by the way she has carried on the struggle, Germany has also proved her systematic contempt of every principle of humanity and of all respect for small States; in proportion as the conflict has developed, the attitude of the Central Powers and of their Allies has been a continual challenge to humanity and to civilization. Need we recall the horrors that accompanied the invasion of Belgium and of Serbia, the atrocious rule laid upon the invaded countries, the massacre of hundreds of thousands of inoffensive Armenians, the barbarities committed against the inhabitants of Syria, the Zeppelin raids upon open towns, the destruction by submarines of passenger steamers and merchantmen, even under neutral flags, the cruel treatment inflicted upon prisoners of war, the judicial murders of Miss Cavell and of Captain Fryatt, the deportation and the reduction to slavery of civil populations? The accomplishment of such a series of crimes perpetrated without any regard for the universal reprobation they aroused, amply explains to President Wilson the protest of the Allies.

VIII. They consider that the Note they handed to the United States in reply to the German Note answers the question put by the American Government, and forms, according to the words of that Government, "an avowal of their respective views as to the terms on which the war might be concluded." Mr. Wilson wishes for more; he desires that the belligerent Powers should define, in the full light of day, their aims in prosecuting the war. The Allies find no difficulty in answering this request. Their war aims are well known; they have been repeatedly defined by the heads of their various Governments. These war aims will only be set forth in detail, with all the compensations and equitable indemnities for harm suffered, at the moment of negotiation. But the civilized world knows that they imply, necessarily and first of all, the restoration of Belgium, Serbia, and Montenegro, with the compensations due to them; the evacuation of the invaded territories in France, in Russia, in Rumania, with just reparation; the reorganization of Europe, guaranteed by a stable regime and based at once on respect for nationalities and on the right to full security and liberty of economic development possessed by all peoples, small and great, and at the same time upon territorial conventions and international settlements such as to guarantee land and sea frontiers against unjustified attack; the restitution of provinces formerly torn from the Allies by force or against the wish of their inhabitants; the liberation of the Italians, as also of the Slavs, Rumanes, and Czechoslovaks from foreign domination; the setting free of the populations subject to the bloody tyranny of the Turks; and the turning out of Europe of the Ottoman Empire as decidedly foreign to Western civilization.

IX. The intentions of his Majesty the Emperor of Russia in regard to Poland have been clearly indicated by the manifesto he has just addressed to his Armies.

X. There is no need to say that, if the Allies desire to shield Europe from the covetous brutality of Prussian militarism, the extermination and the political disappearance of the German peoples have never, as has been pretended, formed part of their designs. They desire above all to ensure peace on the principles of liberty and justice, and upon the inviolable fidelity to international engagements by which the Government of the United States have ever been inspired.

XI. United in the pursuit of this lofty aim, the Allies are determined, severally and jointly, to act with all their power and to make all sacrifices to carry to a victorious end a conflict upon which, they are convinced, depend not only their own welfare and prosperity but the future of civilization itself.

PARIS, January 10, 1917.

APPENDIX II.

Text of the Proclamation to the People of Baghdad, issued by Sir Stanley Maude, March 19th, 1917.

“To the People of Baghdad Vilayet.

1. In the name of my King, and in the name of the peoples over whom he rules, I address you as follows:—

2. Our military operations have as their object the defeat of the enemy, and the driving of him from these territories. In order to complete this task, I am charged with absolute and supreme control of all regions in which British troops operate; but our armies do not come into your cities and lands as conquerors or enemies, but as liberators.

3. Since the days of Halaka your city and your lands have been subject to the tyranny of strangers, your palaces have fallen into ruins, your gardens have sunken in desolation, and your forefathers and yourselves have groaned in bondage. Your sons have been carried off to wars not of your seeking, your wealth has been stripped from you by unjust men and squandered in distant places.

4. Since the days of Midhat, the Turks have talked of reforms, yet do not the ruins and wastes of to-day testify the vanity of those promises?

5. It is the wish not only of my King and his peoples, but it is also the wish of the great nations with whom he is in alliance, that you should prosper even as in the past, when your lands were fertile, when your ancestors gave to the world literature, science, and art, and when Baghdad city was one of the wonders of the world.

6. Between your people and the dominions of my King there has been a close bond of interest. For 200 years have the merchants of Baghdad and Great Britain traded together in mutual profit and friendship. On the other hand, the Germans and Turks who have despoiled you and yours, have for 20 years made Baghdad a centre of power from which to assail the power of the British and the Allies of the British in Persia and Arabia. Therefore the British Government cannot remain indifferent as to what takes place in your country now or in the future, for in duty to the interests of the British people and their Allies, the British Government cannot risk that being done in Baghdad again which has been done by the Turks and Germans during the war.

7. But you people of Baghdad, whose commercial prosperity and whose safety from oppression and invasion must ever be a matter of the closest concern to the British Government, are not to understand that it is the wish of the British Government to impose upon you alien institutions. It is the hope of the British Government that the aspirations of your philosophers and writers shall be realised and that once again the people of Baghdad shall flourish, enjoying their wealth and substance under institutions which are in consonance with their sacred laws and their racial ideals. In Hejaz the Arabs have expelled the Turks and Germans who oppressed them and proclaimed the Sherif Hussein as their King, and his Lordship rules in independence and freedom, and is the ally of the nations who are fighting against the power of Turkey and Germany; so, indeed, are the noble Arabs, the Lords of Koweyt, Nejd, and Asir.

8. Many noble Arabs have perished in the cause of Arab freedom, at the hands of those alien rulers, the Turks, who oppressed them. It is the determination of the Government of Great Britain and the great Powers allied to Great Britain, that these noble Arabs shall not have suffered in vain. It is the hope and desire of the British people and the nations in alliance with them, that the Arab race may rise once more to greatness and renown among the people of the earth, and that it shall bind itself together to this end in unity and concord.

9. O people of Baghdad remember that for 26 generations you have suffered under strange tyrants who have ever endeavoured to set one Arab house against another in order that they might profit by your dissensions. This policy is abhorrent to Great Britain and her Allies, for there can be neither peace nor prosperity where there is enmity and misgovernment. Therefore I am commanded to invite you, through your nobles and elders and representatives, to participate in the management of your civil affairs in collaboration with the political representatives of Great Britain who accompany the British Army, so that you may be united with your kinsmen in North, East, South, and West in realising the aspirations of your race."

March 19th, 1917

APPENDIX III.

The Prime Minister's Speech on War Aims.

(Addressed to the Delegates of the Trade Unions at the Central Hall, Westminster, on 5th January, 1918.)

When the Government invite organised Labour in this country to assist them to maintain the might of their armies in the field, its representatives are entitled to ask that any misgivings and doubts which any of them may have about the purpose to which this precious strength is to be applied should be definitely cleared, and what is true of organised labour is equally true of all citizens in this country without regard to grade or avocation.

When men by the million are being called upon to suffer and die and vast populations are being subjected to the sufferings and privations of war on a scale unprecedented in the history of the world, they are entitled to know for what cause or causes they are making the sacrifice. It is only the clearest, greatest, and justest of causes that can justify the continuance even for one day of this unspeakable agony of the nations. And we ought to be able to state clearly and definitely not only the principles for which we are fighting but also their definite and concrete application to the war map of the world.

We have arrived at the most critical hour in this terrible conflict, and before any Government takes the fateful decision as to the conditions under which it ought either to terminate or continue the struggle, it ought to be satisfied that the conscience of the nation is behind these conditions, for nothing else can sustain the effort which is necessary to achieve a righteous end to this war. I have therefore during the last few days taken special pains to ascertain the view and the attitude of representative men of all sections of thought and opinion in the country. Last week I had the privilege not merely of perusing the declared war aims of the Labour Party, but also of discussing in detail with the Labour leaders the meaning and intention of that declaration. I have also had an opportunity of discussing this same momentous question with Mr. Asquith and Viscount Grey. Had it not been that the Nationalist leaders are in Ireland engaged in endeavouring to solve the tangled problem of Irish self-government, I should have been happy to exchange views with them, but Mr. Redmond, speaking on their behalf, has, with his usual lucidity and force, in many of his speeches, made clear what his ideas are as to the object and purpose of the war. I have also had the opportunity of consulting certain representatives of the Great Dominions Overseas.

I am glad to be able to say as a result of all these discussions that, although the Government are alone responsible for the actual language I propose using, there is national agreement as to the character and purpose of our war aims and peace conditions, and in what I say to you to-day, and through you to the world, I can venture to claim that I am speaking not merely the mind of the Government but of the nation and of the Empire as a whole.

We may begin by clearing away some misunderstandings and stating what we are *not* fighting for. We are not fighting a war of aggression against the German people. Their leaders have persuaded them that they are fighting a war of self-defence against a league of rival nations bent on the destruction of Germany. That is not so. The destruction or disruption of Germany or the German people has never been a war aim with us from the first day of this war to this day. Most reluctantly and, indeed, quite unprepared for the dreadful ordeal, we were forced to join in this war in self-defence, in defence of the violated public law of Europe, and in vindication of the most solemn treaty obligations on which the public system of Europe rested, and on which Germany had ruthlessly

trampled in her invasion of Belgium. We had to join in the struggle or stand aside and see Europe go under and brute force triumph over public right and international justice. It was only the realisation of that dreadful alternative that forced the British people into the war. And from that original attitude they have never swerved. They have never aimed at the break up of the German peoples or the disintegration of their State or country. Germany has occupied a great position in the world. It is not our wish or intention to question or destroy that position for the future, but rather to turn her aside from hopes and schemes of military domination and to see her devote all her strength to the great beneficent tasks of the world. Nor are we fighting to destroy Austria-Hungary or to deprive Turkey of its capital, or of the rich and renowned lands of Asia Minor and Thrace, which are predominantly Turkish in race.

Nor did we enter this war merely to alter or destroy the Imperial constitution of Germany, much as we consider that military autocratic constitution a dangerous anachronism in the 20th century. Our point of view is that the adoption of a really democratic constitution by Germany would be the most convincing evidence that in her the old spirit of military domination had indeed died in this war, and would make it much easier for us to conclude a broad democratic peace with her. But, after all, that is a question for the German people to decide.

It is now more than a year since the President of the United States, then neutral, addressed to the belligerents a suggestion that each side should state clearly the aims for which they were fighting. We and our Allies responded by the Note of January 10, 1917.

To the President's appeal the Central Empires made no reply, and, in spite of many adjurations, both from their opponents and from neutrals, they have maintained a complete silence as to the objects for which they are fighting. Even on so crucial a matter as their intention with regard to Belgium they have uniformly declined to give any trustworthy indication.

On December 25 last, however, Count Czernin, speaking on behalf of Austria-Hungary and her Allies, did make a pronouncement of a kind. It is indeed deplorably vague. We are told that "it is not the intention" of the Central Powers "to appropriate forcibly" any occupied territories or "to rob of its independence" any nation which has lost its "political independence" during the war. It is obvious that almost any scheme of conquest and annexation could be perpetrated within the literal interpretation of such a pledge.

Does it mean that Belgium, Serbia, Montenegro, and Rumania will be as independent and as free to direct their own destinies as the Germans or any other nation? Or does it mean that all manner of interference and restrictions, political and economic, incompatible with the status and dignity of a free and self-respecting people, are to be imposed? If this is the intention then there will be one kind of independence for a great nation and an inferior kind of independence for a small nation. We must know what is meant, for equality of right amongst nations, small as well as great, is one of the fundamental issues this country and her Allies are fighting to establish in this war. Reparation for the wanton damage inflicted in Belgian towns and villages and their inhabitants is emphatically repudiated. The rest of the so-called "offer" of the Central Powers is almost entirely a refusal of all concessions. All suggestions about the autonomy of subject nationalities are ruled out of the peace terms altogether. The question whether any form of self-government is to be given to Arabs, Armenians, or Syrians is declared to be entirely a matter for the Sublime Porte. A pious wish for the protection of minorities "in so far as it is practically realizable" is the nearest approach to liberty which the Central statesmen venture to make.

On one point only are they perfectly clear and definite. Under no circumstances will the "German demand" for the restoration of the

whole of Germany's colonies be departed from. All principles of self-determination, or, as our earlier phrase goes, government by consent of the governed, here vanish into thin air.

It is impossible to believe that any edifice of permanent peace could be erected on such a foundation as this. Mere lip service to the formula of no annexations and no indemnities or the right of self-determination is useless. Before any negotiations can even be begun, the Central Powers must realise the essential facts of the situation.

The days of the Treaty of Vienna are long past. We can no longer submit the future of European civilisation to the arbitrary decisions of a few negotiators striving to secure by chicanery or persuasion the interests of this or that dynasty or nation. The settlement of the new Europe must be based on such grounds of reason and justice as will give some promise of stability. Therefore it is that we feel that government with the consent of the governed must be the basis of any territorial settlement in this war. For that reason also, unless treaties be upheld, unless every nation is prepared at whatever sacrifice to honour the national signature, it is obvious that no Treaty of Peace can be worth the paper on which it is written.

The first requirement, therefore, always put forward by the British Government and their Allies has been the complete restoration, political, territorial, and economic, of the independence of Belgium and such reparation as can be made for the devastation of its towns and provinces. This is no demand for war indemnity, such as that imposed on France by Germany in 1871. It is not an attempt to shift the cost of warlike operations from one belligerent to another, which may or may not be defensible. It is no more and no less than an insistence that before there can be any hope for a stable peace, this great breach of the public law of Europe must be repudiated, and, so far as possible, repaired. Reparation means recognition. Unless international right is recognised by insistence on payment for injury done in defiance of its canons it can never be a reality. Next comes the restoration of Serbia, Montenegro, and the occupied parts of France, Italy, and Rumania. The complete withdrawal of the alien armies and the reparation for injustice done is a fundamental condition of permanent peace.

We mean to stand by the French democracy to the death in the demand they make for a reconsideration of the great wrong of 1871, when, without any regard to the wishes of the population, two French provinces were torn from the side of France and incorporated in the German Empire. This sore has poisoned the peace of Europe for half a century, and until it is cured healthy conditions will not have been restored. There can be no better illustration of the folly and wickedness of using a transient military success to violate national right.

I will not attempt to deal with the question of the Russian territories now in German occupation. The Russian policy since the Revolution has passed so rapidly through so many phases that it is difficult to speak without some suspension of judgment as to what the situation will be when the final terms of European peace come to be discussed. Russia accepted war with all its horrors because, true to her traditional guardianship of the weaker communities of her race, she stepped in to protect Serbia from a plot against her independence. It is this honourable sacrifice which not merely brought Russia into the war, but France as well. France, true to the conditions of her treaty with Russia, stood by her Ally in a quarrel which was not her own. Her chivalrous respect for her treaty led to the wanton invasion of Belgium; and the treaty obligations of Great Britain to that little land brought us into the war.

The present rulers of Russia are now engaged, without any reference to the countries whom Russia brought into the war, in separate negotiations with their common enemy. I am indulging in no reproaches; I am merely stating facts with a view to making it clear why Britain cannot be held accountable for decisions taken in her absence, and concerning which she has not been consulted or her aid invoked. No one

who knows Prussia and her designs upon Russia can for a moment doubt her ultimate intention. Whatever phrases she may use to delude Russia, she does not mean to surrender one of the fair provinces or cities of Russia now occupied by her forces. Under one name or another—and the name hardly matters—these Russian provinces will henceforth be in reality part of the dominions of Prussia. They will be ruled by the Prussian sword in the interests of Prussian autocracy, and the rest of the people of Russia will be partly enticed by specious phrases and partly bullied by the threat of continued war against an impotent army into a condition of complete economic and ultimate political enslavement to Germany. We all deplore the prospect. The democracy of this country means to stand to the last by the democracies of France and Italy and all our other Allies. We shall be proud to fight to the end side by side with the new democracy of Russia, so will America and so will France and Italy. But if the present rulers of Russia take action which is independent of their Allies we have no means of intervening to arrest the catastrophe which is assuredly befalling their country. Russia can only be saved by her own people.

We believe, however, that an independent Poland, comprising all those genuinely Polish elements who desire to form part of it, is an urgent necessity for the stability of Western Europe.

Similarly, though we agree with President Wilson that the break up of Austria-Hungary is no part of our war aims, we feel that, unless genuine self-government on true democratic principles is granted to those Austro-Hungarian nationalities who have long desired it, it is impossible to hope for the removal of those causes of unrest in that part of Europe which have so long threatened its general peace.

On the same grounds we regard as vital the satisfaction of the legitimate claims of the Italians for union with those of their own race and tongue. We also mean to press that justice be done to men of Rumanian blood and speech in their legitimate aspirations. If these conditions are fulfilled Austria-Hungary would become a Power whose strength would conduce to the permanent peace and freedom of Europe, instead of being merely an instrument to the pernicious military autocracy of Prussia that uses the resources of its allies for the furtherance of its own sinister purposes.

Outside Europe we believe that the same principles should be applied. While we do not challenge the maintenance of the Turkish Empire in the homelands of the Turkish race with its capital at Constantinople—the passage between the Mediterranean and the Black Sea being internationalised and neutralised—Arabia, Armenia, Mesopotamia, Syria, and Palestine are in our judgment entitled to a recognition of their separate national conditions.

What the exact form of that recognition in each particular case should be need not here be discussed, beyond stating that it would be impossible to restore to their former sovereignty the territories to which I have already referred.

Much has been said about the arrangements we have entered into with our Allies on this and on other subjects. I can only say that as new circumstances, like the Russian collapse and the separate Russian negotiations have changed the conditions under which those arrangements were made, we are, and always have been, perfectly ready to discuss them with our Allies.

With regard to the German colonies, I have repeatedly declared that they are held at the disposal of a Conference whose decision must have primary regard to the wishes and interests of the native inhabitants of such colonies. None of those territories are inhabited by Europeans. The governing consideration, therefore, in all these cases must be that the inhabitants should be placed under the control of an administration acceptable to themselves, one of whose main purposes will be to prevent

their exploitation for the benefit of European capitalists or Governments. The natives live in their various tribal organisations under chiefs and councils who are competent to consult and speak for their tribes and members, and thus to represent their wishes and interests in regard to their disposal.

The general principle of national self-determination is therefore as applicable in their cases as in those of occupied European territories. The German declaration, that the natives of the German colonies have, through their military fidelity in the war, shown their attachment and resolve under all circumstances to remain with Germany, is applicable not to the German colonies generally, but only to one of them, and in that case (German East Africa) the German authorities secured the attachment, not of the native population as a whole, which is and remains profoundly anti-German, but only of a small warlike class from whom their Askaris, or soldiers, were selected. These they attached to themselves by conferring on them a highly privileged position as against the bulk of the native population, which enabled these Askaris to assume a lordly and oppressive superiority over the rest of the natives. By this and other means they secured the attachment of a very small and insignificant minority whose interests were directly opposed to those of the rest of the population, and for whom they have no right to speak. The German treatment of their native populations in their colonies has been such as amply to justify their fear of submitting the future of those colonies to the wishes of the natives themselves.

Finally, there must be reparation for injuries done in violation of international law. The Peace Conference must not forget our seamen and the service they have rendered to, and the outrages they have suffered for, the common cause of freedom.

One omission we notice in the proposal of the Central Powers which seems to us especially regrettable. It is desirable, and indeed essential, that the settlement after this war shall be one which does not in itself bear the seed of future war. But that is not enough. However wisely and well we may make territorial and other arrangements, there will still be many subjects of international controversy. Some, indeed, are inevitable.

The economic conditions at the end of the war will be in the highest degree difficult. Owing to the diversion of human effort to warlike pursuits, there must follow a world-shortage of raw materials, which will increase the longer the war lasts, and it is inevitable that those countries which have control of the raw materials will desire to help themselves and their friends first.

Apart from this, whatever settlement is made will be suitable only to the circumstances under which it is made, and, as those circumstances change, changes in the settlement will be called for.

So long as the possibility of dispute between nations continues, that is to say, so long as men and women are dominated by passion and ambition and war is the only means of settling a dispute, all nations must live under the burden not only of having from time to time to engage in it, but of being compelled to prepare for its possible outbreak. The crushing weight of modern armaments, the increasing evil of compulsory military service, the vast waste of wealth and effort involved in warlike preparation, these are blots on our civilisation of which every thinking individual must be ashamed.

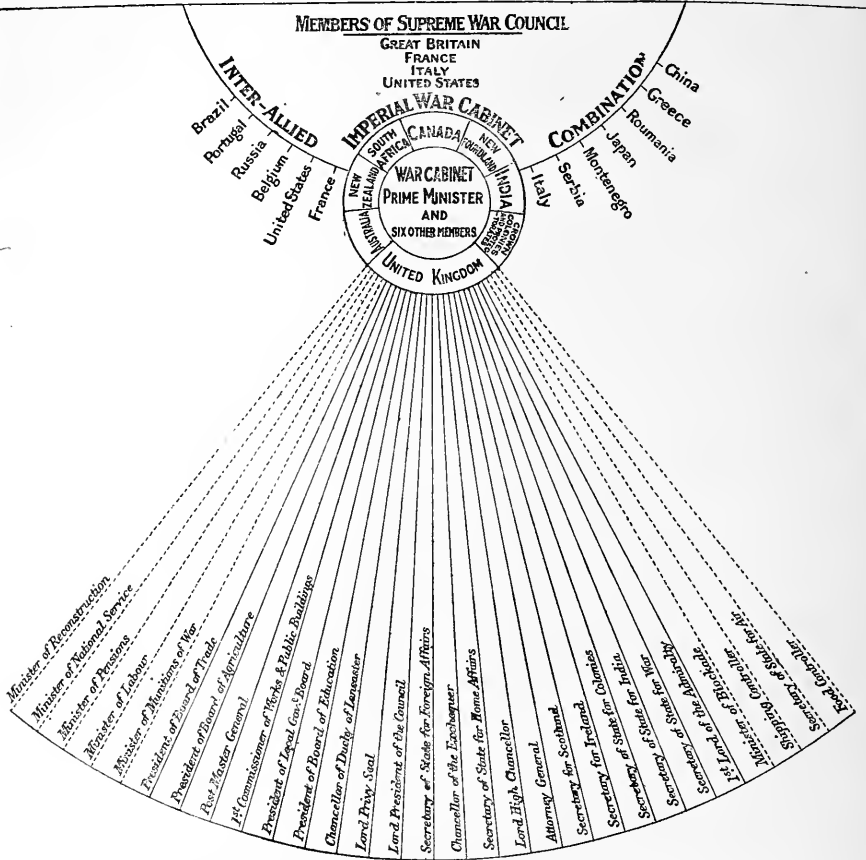
For these and other similar reasons, we are confident that a great attempt must be made to establish by some international organisation an alternative to war as a means of settling international disputes. After all, war is a relic of barbarism, and, just as law has succeeded violence as the means of settling disputes between individuals, so we believe that it is destined ultimately to take the place of war in the settlement of controversies between nations.

If, then, we are asked what we are fighting for, we reply, as we have often replied—We are fighting for a just and a lasting peace—and we believe that before permanent peace can be hoped for three conditions must be fulfilled.

First, the sanctity of treaties must be re-established; secondly, a territorial settlement must be secured based on the right of self-determination or the consent of the governed; and, lastly, we must seek by the creation of some international organisation to limit the burden of armaments and diminish the probability of war.

On these conditions the British Empire would welcome peace, to secure those conditions its peoples are prepared to make even greater sacrifices than those they have yet endured.

CHART SHOWING THE ADMINISTRATIVE ORGANISATION OF THE BRITISH GOVERNMENT AND ITS DEVELOPMENT DURING THE WAR.



This Chart shows the formation of the Government during 1917, with the War Cabinet sitting as a permanent body, the Imperial Cabinet meeting periodically, and the Ministers with Portfolio.

————— Ministers with Portfolio previous to 1914.
 - - - - - Ministers with Portfolio created since 1914.

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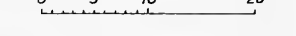
BRUGES

WESTERN THEATRE

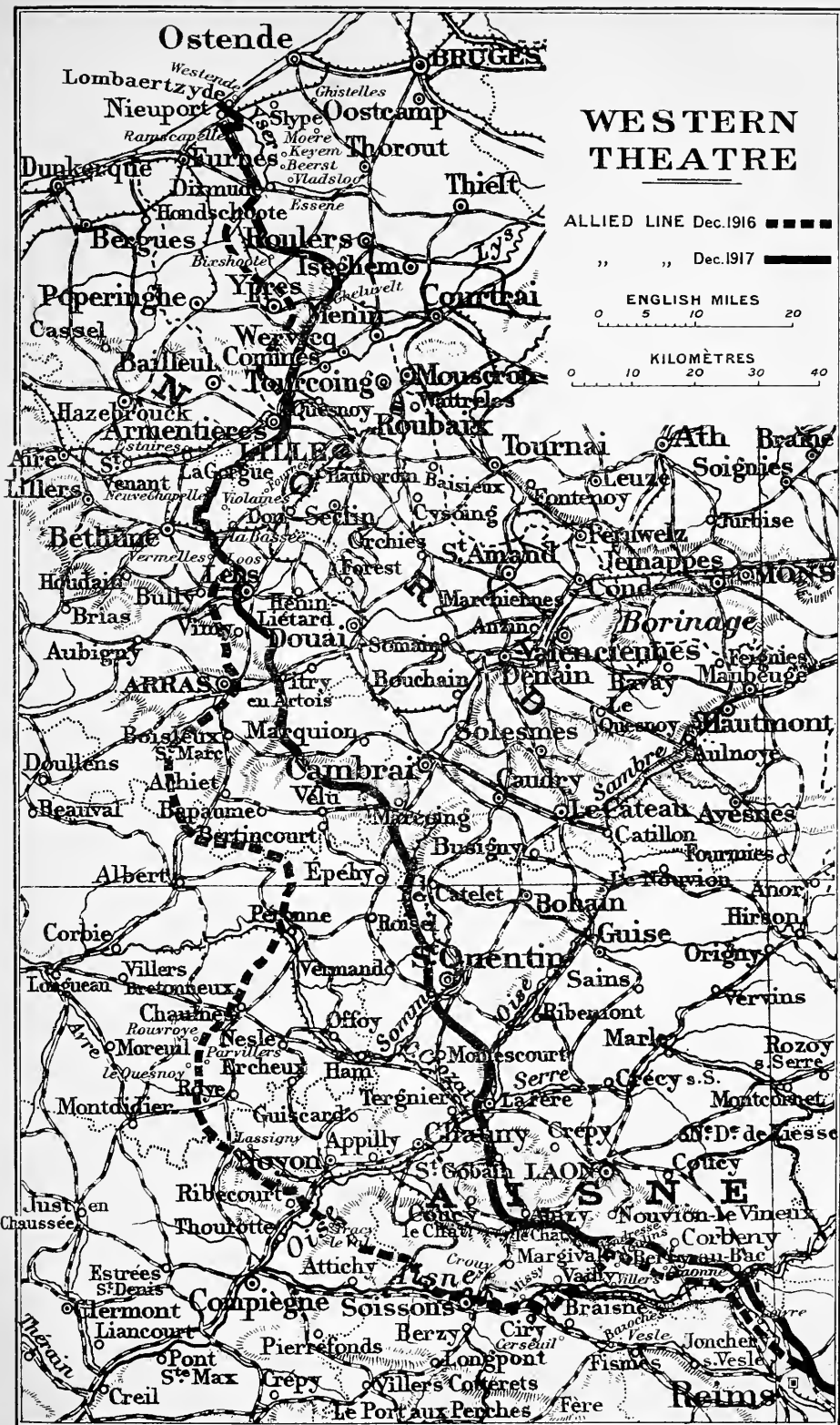
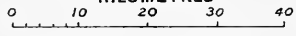
ALLIED LINE Dec. 1916 

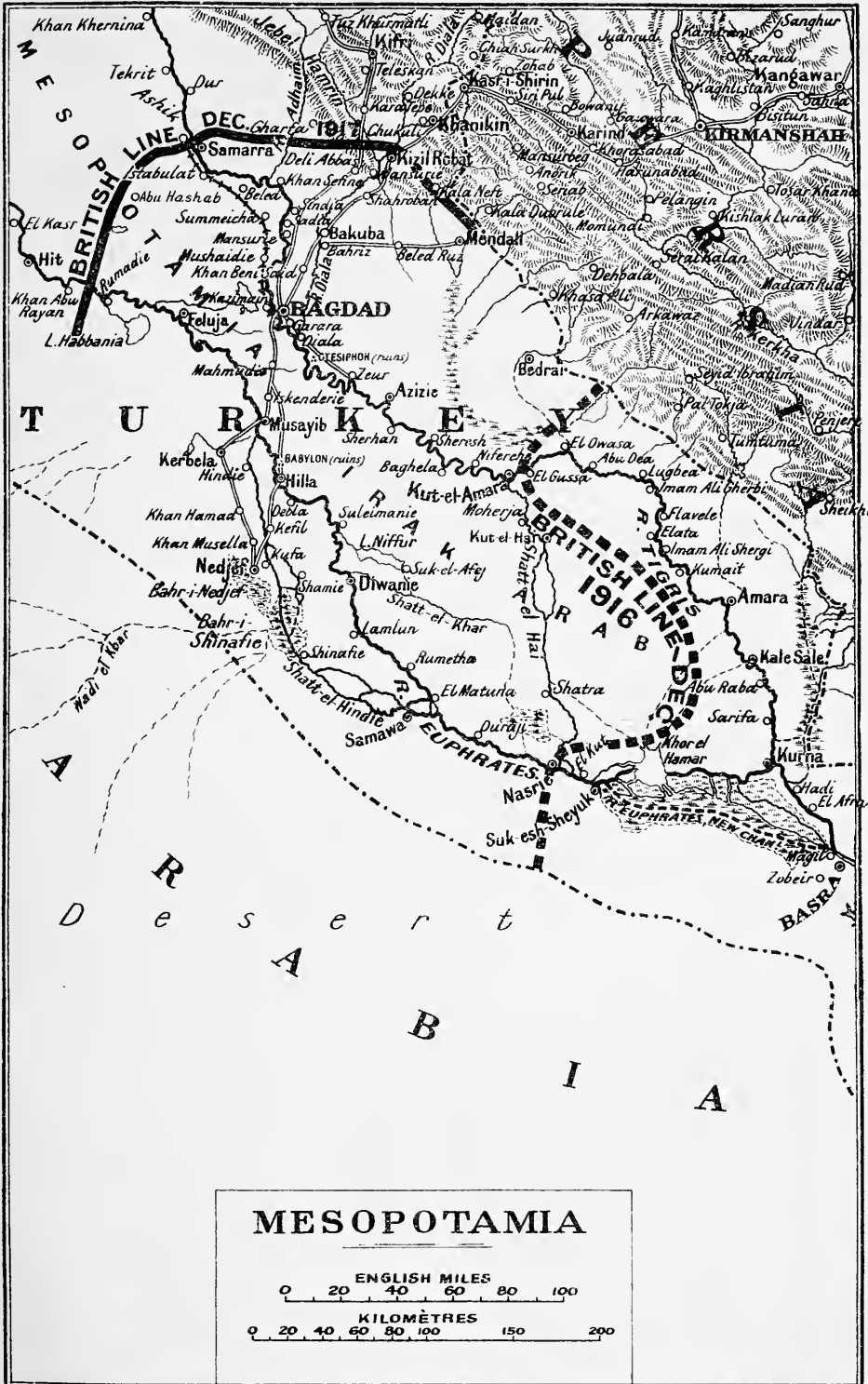
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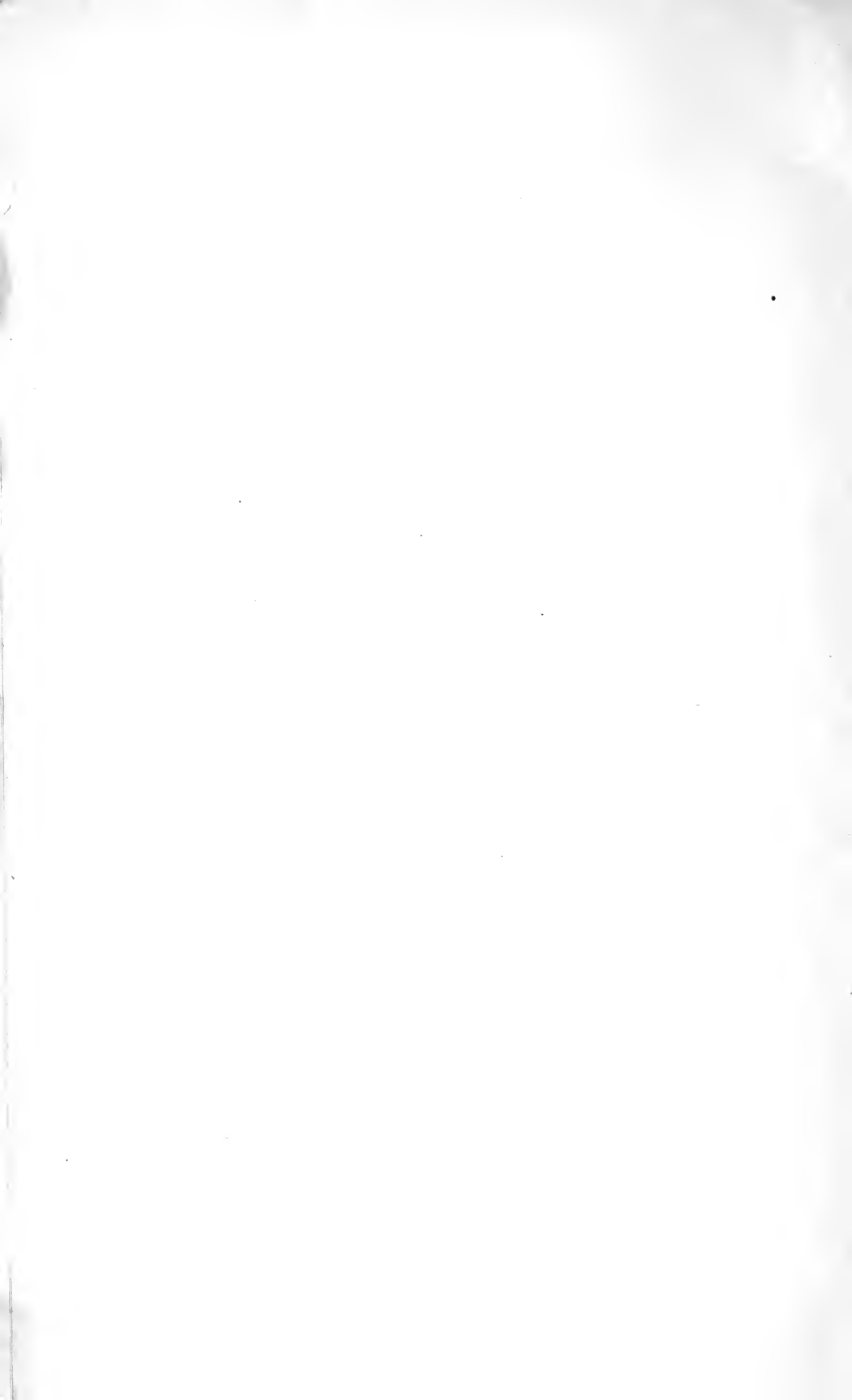
ENGLISH MILES



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4





PALESTINE

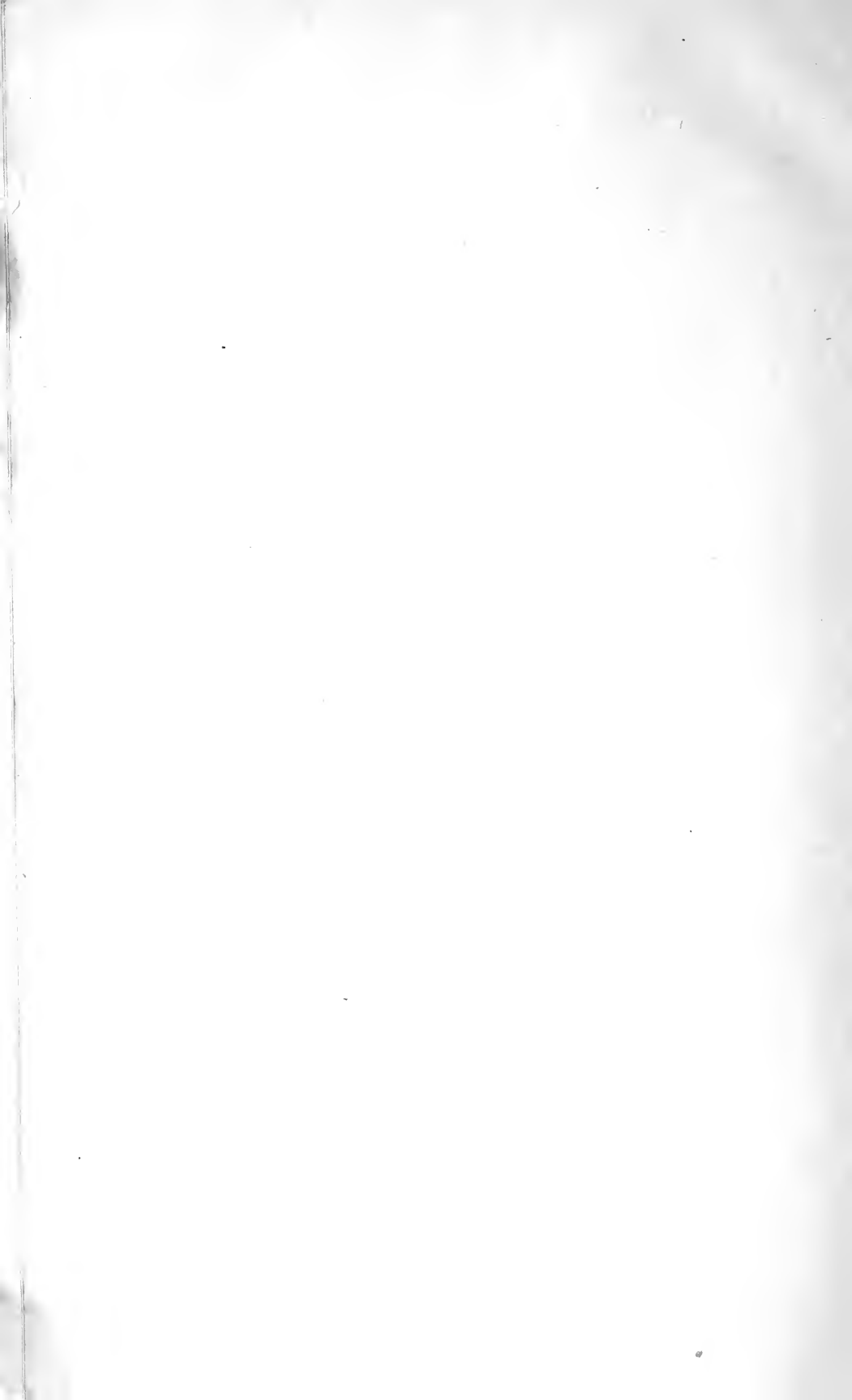
MEDITERRANEAN
SEA

BRITISH LINE, DEC. 1917











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THE NATIONAL WAR AIMS COMMITTEE was formed in July, 1917, for the purpose of "keeping before our Nation the causes which have led to the world war, and the vital importance of continuing the struggle until the evil forces which originated this terrible conflict are destroyed for ever."

¶ Local War Aims Committees, affiliated to the National Committee, have been instituted throughout the country, the political agents of the several parties acting as joint secretaries in the constituencies.

¶ By means of this organisation, the War Aims of the Nation and its Allies are emphasised and explained to all sections of the population.

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